STANLEY®

NEW

V SERIES Hydraulic Tools
PURE HYDRAULIC POWER

Hydraulic Tools

STANLEY *V SERIES:* VERSATILITY FOR GLOBAL APPLICATIONS

Stanley Hydraulic Tools is the global leader of hydraulic tools offering a wide range of products, and is proud to introduce the ***V SERIES*** line of hand held hydraulic tools. Stanley ***V SERIES*** are versatile, high performing tools designed specifically for applications found in the global infrastructure market.

INFRASTRUCTURE TOOLS

Stanley ***V SERIES*** offers several tools for infrastructure applications, whether it's water municipalities, road maintenance, mining or search and rescue operation, ***V SERIES*** tools provide the performance and versatility that the industry has come to expect from Stanley.

STANLEY QUALITY POLICY

"Stanley Hydraulic Tools is committed to exceeding our customers' expectations in regard to our products, services, and all interactions. Our dedication to continuously improve Safety, Quality, Delivery, Inventory, and Cost is the key to realizing that commitment."

V SERIES

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Professionals turn to hydraulic tools when they need to get the job done. Nothing matches the performance of hydraulic tools as compressed oil transfers energy more efficiently than compressed air. The inherent efficiencies result in longer life of the tool along with increased power and reliability.

Advantages of Hydraulic Tools

	Hydraulic		Pneumatic	
Durability	Small engine power unit is easy to maintain	√	Large compressor engine requires high maintenance	X
Versatility	Several tools can be run off of same power source	√	Limited tools can be ran	X
Cost	Power units starting at a few thousand dollars, cost of ownership is low	√	Air compressors are much higher price and require more maintenance	X
Cold Weather Performance	Operates in sub-zero temperatures	√	Air lines freeze	X
Enclosed Spaces	Zero exhaust, easier to operate in confined areas	√	Comressed air exhaust spreads dust and debris	X
Portability	Small and lightweight power units are easy to move to jobsite	√	Large tow behind compressor cannot access remote areas	X

One of the key advantages of hydraulic tools is the power source. Unlike pneumatic tools requiring a large pull-behind air compressor, hydraulic tools can be ran off of a smaller more portable power unit. Hydraulic power units can run any tool in this catalog and can be maneuvered to remote locations where air compressors cannot access.

Features:

- **Versatile** - dozens of tools can be operated from the same power source
- **Air Cooled** - no winter freezing
- **Fuel efficient** - smaller engine results in lower fuel consumption
- **Quiet Operation**
- **Compact Size** - fits easily into a small truck or van
- **Serviceability** - can be serviced by small engine dealers

GPV18B02

Model	GPV09*	GPV13*		GPV18	
Part Number	GPV09H02	GPV135H02	GPV138H02	GPV18B02	GPV182B02
Weight (kg)	60	75	75	120	120
Dimensions (mm)	620 x 500 x 600	780 x 510 x 600	780 x 510 x 600	900 x 590 x 740	900 x 590 x 740
Flow (lpm)	20	20 - 24	30	20 / 30	30 / 40
Operating Pressure (bar)	155	155	155	155	155
Engine	Honda 9 hp	Honda 13 hp	Honda 13hp	B & S 18 hp	B & S 18 hp

Model	GPV25	GPV28
Part Number	GPV25B02	GPV28B02
Weight (kg)	135	200
Dimensions (mm)	1020 x 610 x 770	1165 x 560 x 880
Flow (lpm)	2 x 20, 30 or 40	2x20, 2x30
Operating Pressure (bar)	155	155
Engine	B & S 23 hp	B & S 35 hp

* CE Model available

The DVP13 power unit is an extremely lightweight and highly portable unit designed or light to medium duty applications. The DVP13 is a diesel power unit with a 9 hp Winsun engine. With a balance of portability and power allows easy access in and out of job sites with minimal equipment management. With 20 lpm flow the DPV13 is an ideal choice for small to medium duty construction and demolition.

Features:

- Compact and portable
- Stainless steel frame with fold up handles, wheels and top bar for lifting
- Large hydraulic oil tank for improved cooling
- 20 lpm output capacity
- 13 hp diesel engine

DPV13E02

The DPV19 is a heavy duty diesel power unit designed for continuous duty operation of 30 lpm hydraulic tools. The DP uses a 19 hp Winsun diesel engine for increased performance and durability.

Features:

- **Stainless steel frame with fold up handles, wheels and top bar for lifting**
- **Large hydraulic oil tank for improved cooling**
- **30 lpm output capacity**
- **19 hp diesel engine**

DPV19K02

Model	DPV13	DPV19
Part Number	DPV13E02	DPV19K02
Output Capacity (lpm)	20	30
Operating Pressure (bar)	155	155
Weight (kg)	130	170
Dimensions (mm)	910 x 620 x 555	1020 x 610 x 800
Fuel Tank Capacity (L)	6.6	6.6
Hydraulic Tank Capacity (L)	12	12
Engine	winsun13hp	Winsun19hp

Power Units

High efficiency, low noise, high reliability and good economy, the electric power unit is the reliable power source while providing equal power to all the hydraulic tools.

Features:

- Big oil tank, stronger air-cooler which makes the cooling system more efficient longer the working time with no overheat problem.
- External hydraulic filter easier changing.
- Advanced original high-pressure gear pumps imported
- Simple to operate

EPV15E02

Electric Engine Power Units

Model	EPV10	EPV15
Part Number	EPV10E02	EPV15E02
Weight (kg)	90	120
Dimensions (mm)	825 x 620 x 555	975 x 590 x 655
Flow (lpm)	20	30
Operating Pressure (bar)	90 - 155	90 - 155
Engine	Electric Motor (7.5kW)	Electric Motor (11kW)
Volt	380V / 50HZ	380V / 50HZ

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Hydraulic Breakers

For breaking concrete, asphalt, or rock; professionals turn to hydraulic breakers to get the job done safely and effectively. With several weight classes to choose from it's easy to select the right breaker for the job and because it's hydraulically powered high levels of performance can be reached when compared to other tool types.

Compared to other tool platforms, hydraulic breakers off the following advantages:

- Higher impact than comparably sized alternative platforms
- Zero tool exhaust offers ease of use in confined spaces
- Quieter operation than pneumatic tools allows for use in sensitive areas
- Longer service life due to hydraulic oil continuously lubricating internal parts

Features:

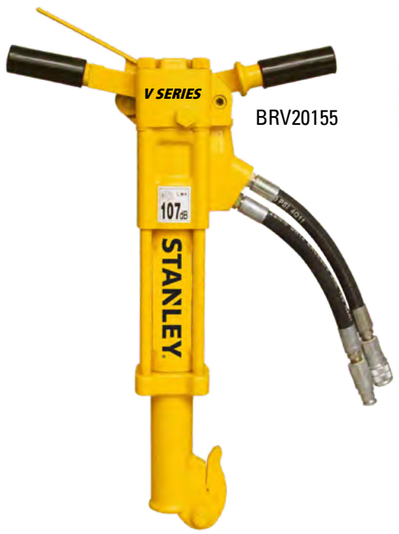
- T-Handle or Anti-Vibration handles to meet application needs
- Several models to choose from, designed for work in concrete between 2" - 8"
- Full selection of breaker bits
- High durability

Hydraulic Breakers

Model	BRV18		BRV20*		BR24*		BRV26	
Part Number	BRV18150	BRV18155	BRV20150	BRV20155	BRV24150	BRV24155	BRV26150	BRV26155
Weight (kg)	18	19	20	21	24	25	26	27
Flow (lpm)	15 - 24	15 - 24	26 - 34	26 - 34	15 - 24	15 - 24	26 – 34	26 – 34
Operating Pressure (bar)	90 - 140	90 - 140	105 - 140	105 - 140	90 - 140	90 - 140	103 – 140	103 – 140
Bit Size (mm)	1 in	1 in	1 in	1 in	1-1/8 in	1-1/8 in	1-1/4 in	1-1/4 in
Handle Type	T-Handle	Anti-Vibration	T-Handle	Anti-Vibration	T-Handle	Anti-Vibration	T-Handle	Anti-Vibration

Model	BRV28*			
Part Number	BRV28120	BRV28125	BRV28250	BRV28255
Weight (kg)	28	29	28	29
Flow (lpm)	26	26	26	26
Operating Pressure (bar)	26 – 34	26 – 34	26 – 34	26 – 34
Bit Size (mm)	1-1/8 in	1-1/8 in	1-1/4 in	1-1/4 in
Handle Type	T-Handle	Anti-Vibration	T-Handle	Anti-Vibration

* CE Model available



BRV20155

BRV28150

Chipping Hammers

The CHV08 Chipping Hammer is a small, highly portable solution for light duty chipping applications. It is commonly used for manhole and utility vault modifications or masonry repair and demolition. When in confined spaces the CHV08 offers power and performance in a small package.

Features:

- Heat insulated front handle
- Independent nitrogen chamber for easy maintenance
- Ergonomic two hand design

CHV08100

Model	CHV08
Part Number	CHV08100
Weight (kg)	8
Flow (lpm)	26 - 34
Operating Pressure (bar)	40 - 140
Bit Size (Hex)	0.58 Round Collar
Handle Type	D Handle

Cut-Off Saw

The COV10 Cut-Off Saw is designed for cutting metal or masonry materials such as concrete, brick, structural steel, pipe and guardrail. The COV10 offers versatility accepting both abrasive wheels and diamond blades.

Features:

- Built in flow control for increased ease of use
- Rotation axis brake
- Counterclockwise blade rotation to suppress dust
- Available in two handle types to fit operational preferences
- Walk behind cart available for accurate scoring of concrete (COV10C)

COV10141E

Model	COV16		
Part Number	COV10141	COV10141E	COV10C
Weight (kg)	9	10	70
Length (mm)	530	1000	800
Width (mm)	280	280	500
Flow (lpm)	26 - 34	26 - 34	NA
Operating Pressure (bar)	105 - 140	105 - 140	NA
Diameter Blade (mm)	355	355	NA
Cutting Depth (mm)	125	125	NA

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Diamond Chain Saw

The DSV10 Diamond Chain Saw is a heavy duty chain saw ideal for fast cutting of concrete, reinforced concrete, conduit, brick, stone and other masonry. Plunge cut capability allows for quick and precise cutting of window, door, conduit and duct openings in walls or concrete pipe. With different bar and chain options the cutting depth can reach 500 mm.

Features:

- Wall Walker™ provides leverage for fast and accurate cuts
- Mud flap to block water spray
- Multi position handle for easy operation in horizontal and vertical cutting

Model	DSV10
Part Number	DSV103000
Weight (kg)	12.4
Length (mm)	585
Width (mm)	240
Height (mm)	265
Cutting Depth (mm)	380 / 500
Flow (lpm)	26 - 34
Operating Pressure (bar)	70 - 140

Auto Pipe Cutter

The APC42 Auto Pipe Cutter is designed specifically for cutting large pipe up to 1600 mm for municipal water repair. It is capable of cutting cast iron, ductile iron, and steel tube. The design allows for automatic cutting of the pipe with remote operation.

Model	APCV42
Part Number	APCV4201
Weight (kg)	42
Cutting Speed (rpm)	110 - 160
Cutting Capacity (mm)	1600
Flow (lpm)	30 - 45
Operating Pressure (bar)	70 - 140

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Trash Pump

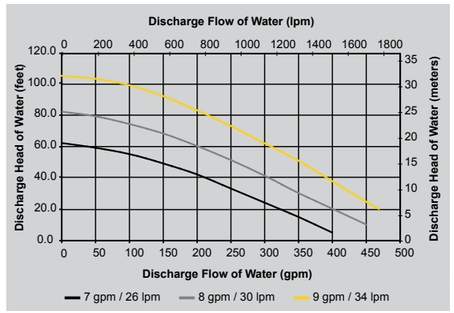
The ***V SERIES*** line of trash pumps are capable of pumping volumes of liquids, sand slurries, gravel and sludge in a highly portable and durable package. Hydraulic pumps are commonly used in municipal and rescue applications where reliability and performance are critical.

Features:

- Capable of pumping up to 3000 lpm
- Can run dry without damage to the unit, unlike electric pumps
- Pumps solids up to 100 mm in diameter
- Self priming

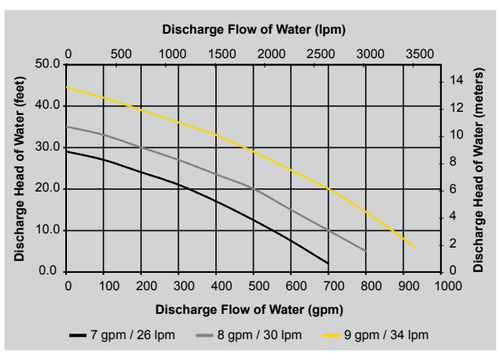
Trash Pump

Model	TPV16		TPV30
Part Number	TPV16501	TPV16801	TPV30801
Weight (kg)	14	14	30
Length (mm)	440	440	485
Width (mm)	304	304	380
Flow (lpm)	15 – 24	26 - 34	30 - 40
Operating Pressure (bar)	70 – 140	105 - 140	105 - 140
Output Capacity (lpm)	1688	1688	3000
Discharge (mm)	75	75	100



TPV16

TPV30



Tampers

V SERIES Tampers are suitable for soil compaction or backfilling in narrow areas. different shaped tamping shoes are available to meet different applications.

Model	TAV12
Part Number	TAV12103
Weight (kg)	12
Length (mm)	1500
Width (mm)	100
Flow (lpm)	15 - 23
Operating Pressure (bar)	70 - 140
Impact Rate (bpm)	1600
Valve Switch	In Line
Tamping Shoe	Kidney Shaped, Round, Square

Core Drill

The CDV08100 hydraulic hand held Core Drill, can be used for drilling rock core samples in concrete, reinforced concrete, asphalt, rock, and other masonry. The “D” size handle can drill horizontally and vertically.

Model	CDV08
Part Number	CDV08100
Weight (kg)	8
Length (mm)	540
Width (mm)	78
Flow (lpm)	15 - 24
Operating Pressure (bar)	70 - 140
Drill Speed (rpm)	600
Drill Diameter (mm)	50 - 200

CDV08100

Ventilating Fan

The VFV09 is a heavy duty ventilating fan used to blow high volumes of air for ventilating large spaces such as vaults or gas and water mains ensuring workable job site conditions.

Features:

- Designed for heavy duty service
- Quiet operation
- Accepts standard heaters and coolers
- High impact plastic case

Model	VFV09
Part Number	VFV8000
Weight (kg)	8.6
Displacement	48000
Output Flow (lpm)	15 - 40
Flow (lpm)	15 - 23
Operating Pressure (bar)	70 - 140
Length (mm)	400
Width (mm)	490

Earth Auger

The EAV21 is a powerful and lightweight earth auger for fast boring of holes for posts, poles or trees.

Features:

- Powerful and lightweight
- Four handle design for easy two person operation
- Maximum boring diameter of 460 mm and depth of 1070 mm

Model	EAV21
Part Number	EAV21102
Weight (kg)	21
Output Flow (lpm)	26 - 34
Operating Pressure (bar)	70 - 140
Length (mm)	300
Width (mm)	1190
Max Diameter (mm)	460
Max Depth (mm)	1070

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Vibrating Impact Plate

The VPV90 is a hydraulic vibratory impact plate designed for use on granular soils, hot or cold asphalt and paving blocks. These units are ideal for trenches, road construction, backfill and foundation work.

Features:

- Inlet-outlet hose quick connection for easy 360 degree rotation
- Dust inhalation problems caused by engine exhaust are not an issue with hydraulically powered unit
- Quieter operation compared to gas units

Model	VPV90
Part Number	VPV9002
Weight (kg)	90
Impact Force (kn)	15
Impact Frequency (hz)	100
Rotating Speed (rpm)	3600
Output Flow (lpm)	26 - 34
Operating Pressure (bar)	70 - 140
Length (mm)	850
Width (mm)	500
Height (mm)	915

Welder with Generator

Hydraulic welder with generator is used to weld metal parts, steel pipes, equipment maintenance and etc.

Features:

- Adjustable DC welder and welding rod diameter 4mm
- Generator Max. output DC 220V 2KW and also providing for other equipment and lighting
- Light weight and small size and easy to move
- Connecting hydraulic power unit with quick-couples

Model	WDV35
Part Number	WDV35002
Weight (kg)	35
Flow (lpm)	30 – 40
Welding Current (A)	40 - 190
Operating Voltage (V)	80
Welding Rod (mm)	Φ.6 -3.2 (flow 30l) Φ.6 – 4 (flow 40l)
Output Voltage (DC)	220
Output Power (KW)	2

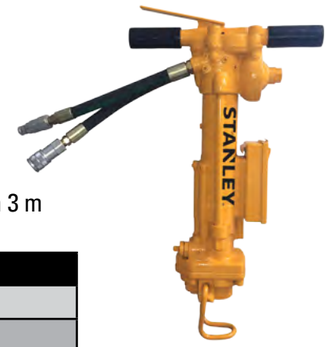
V SERIES

SINKER DRILL

The SKV20 Sinker Drill is designed for blast hole drilling in mines, tunnels, construction, etc, which also can be used in leak detection for gas utilities. SKV20 is light and easy to handle. It is ideal for applications requiring frequent moves on the job site.

Features:

- Feathering trigger, easy-start
- Speed adjustable (0 - 400 rpm)
- Built in air compressor for clear holes of debris
- Drilling diameter up to Φ50 mm and drilling depth 3 m



Model	SKV20			
Part Number	SKV20130A			
Weight (kg)	20			
Length (mm)	508			
Width (mm)	350			
Flow Range (lpm)	20 -25			
Working Pressure (bar)	90 -140			
Max Depth (m)	3			
Drill Speed (rpm)	0 – 400			
Max Dia. (mm)	50			
Biz Size (in)	7/8 x 4-1/4 Hex			
Striking Energy (J)	50			
Rotation Torque (Nm)	15			
Rotation	Counterclockwise			
Built-in Compressor	Air supply			
Blow frequency / rotations	max. 0.08 m3/min. / 2 bar			
4 settings	0	1	2	3
Blows (/min)	1500	1350	1100	900
Rotations (rpm)	0	200	300	400

MOBILE LIGHT

The LTV80 Mobile Light is powered by battery that is charged by the hydraulic power unit. It can be used in the construction sites at night without an electric power source, especially effective in emergency rescue and urgent engineering recovery. It is easy controlled and operated to light a large visible area.

Features:

- Wired and wireless remote control, easy to operate components
- Waterproof and dust proof
- Bright LED source with service life of 50,000 - 60,000 hours
- Extending 12.8 m high and an optional 2.4 m, vertical rotation angle 400 degrees
- Control device operated by air pressure in the operating system, sealed and continuously working

Model	LTV80
Part Number	LTV8002
Weight (kg)	83
Length (mm)	610
Dimensions (mm)	1325 x 870 x 865
Voltage (v)	12 DC
Power (w)	50 x 2
Lumen (Plm)	3500 x 2
Elevation Way	Pneumatic
Wind Resistance	6 - 8 Level

V SERIES

THE BASIC PRINCIPLE OF HYDRAULICS FOR TOOL OPERATION

The basic principle of hydraulics used for tool operation can be compared with a typical household water system.

The typical rotary car-wash brush tool, that is operated from water through a garden hose, is in actuality a hydraulic tool. Water rushing through the garden hose drives a small motor in the car-wash tool which, in turn, rotates the brush. However, it is not just the rushing water that is driving the motor. There is also pressure associated with the rushing water—about 60 pounds per square inch (psi). Without the pressure, the tool would have no power. Without pressure, any force applied to the tool, such as pushing down on the tool, would stall the tool.

Water rushing through the hose (or the flow of water) is measured in gallons per minute (gpm) and results in the speed of the tool (in the case of the car-wash tool, the speed of the brush). Pressure associated with the water provides power to the tool.

The same principle applies in one of our tools. In a breaker, for example, the flow results in the speed of the tool and the resistance to that flow creates a demand for pressure. If the system has the capacity to deliver the pressure, power is transmitted to the tool to do work.

Hydraulic tools actually use less flow (gpm) than that produced through a garden hose. The pressure, however, is considerably higher. Hydraulic tools require pressures up to 2000 psi / 140 bar but only need 5 to 10 gpm to operate effectively. Of course, a typical HTMA hydraulic system returns fluid to a reservoir for re-use as opposed to the household water system that spills fluid to waste.

OPEN-CENTER AND CLOSED-CENTER SYSTEMS

There are two basic types of hydraulic systems — Open-Center and Closed-Center.

OPEN-CENTER IS CONSTANT FLOW — VARIABLE PRESSURE

When a tool valve is in the OFF position, hydraulic oil flows through the ON/OFF valve ports of the tool and back to the reservoir. The system is constantly flowing oil through the tool valve ports and back to the reservoir at no pressure. When the tool valve is ON, oil circulates through the tool causing the tool to operate, and then returns to the reservoir. Pressure is created when resistance to flow is sensed by the system. This occurs when the tool is put to work. Pressure will increase as the tool needs it up to the relief setting in the hydraulic system.

CLOSED-CENTER IS CONSTANT PRESSURE — VARIABLE FLOW

When a tool valve is in the OFF position, hydraulic oil flow stops at the ON/OFF valve port of the tool. The system will build and hold pressure without returning oil to the reservoir. When the tool valve is ON, oil circulates through the tool causing the tool to operate, and then returns to the reservoir. Pressure tends to be constant in the system. Pressure will increase as the tool needs it up to the settings in the hydraulic system. And if pressures higher than the system setting are demanded by the work, flow will decrease.

FLUID TEMPERATURE

The following information will serve to assist those installing hydraulics in mobile applications for handheld tools. While many hydraulic circuits can run upwards to 200° F / 93° C, temperatures over 110° F / 43° C are uncomfortable to human touch. Our desire is to hold oil temperature to a maximum of 140° F / 43° C.

In almost any hydraulic tool circuit, oil cooling methods will be required except for very short periods of operation or in underwater and extreme cold environments. If you are involved in the design of a hydraulic tool circuit, use the following as guidelines.

BASIC DON'TS FOR COOL OIL CONTROL

1. DON'T — Rely on a large reservoir to control oil heating. Large reservoirs, even with good air circulation, do not adequately dissipate heat.
2. DON'T — Set relief pressure too low (open-center circuits) for percussion type tools (breakers, hammer drills, etc.). Pressure peaks may run up to 350 PSI over gauge pressure, popping the relief and causing heat as well as low tool performance.
3. DON'T — Pump more oil than the tool should use and avoid flow controls if possible. Instead, size the pump for desired flow volume. Gear type flow dividers can be used to reduce flow more efficiently than valves, reducing heat.
4. DON'T — Use heavy oils such as 30W or 10W30 engine oils. These will cause resistance in lines and add to backpressure and heat.
5. DON'T — Run return oil through control valves or other circuit components, except coolers and return line filters.

DO THE FOLLOWING TO REDUCE HEAT GENERATION

1. Operate pumps at moderate speed — gear pumps usually generate less heat and are less prone to cavitation at speeds of 1,000-2,000 RPM.
2. Use generous line sizes — Especially on pump suction and return from tool to tank.
3. Use oils in 130-225 SSU at l00° F / 38° C range with high viscosity index. (see hydraulic fluid recommendations at the end of this section)

PROVIDE GOOD COOLING FOR HYDRAULIC OIL

1. Use an air-to-oil cooler of maximum size for space available. Use a shrouded, high capacity fan. Many vehicles do not cool well when parked with engine at low speed. Do NOT use a "thermal" viscous-drive fan because these fans do not draw air unless the engine is hot.

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