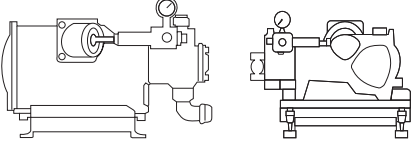
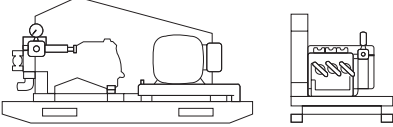
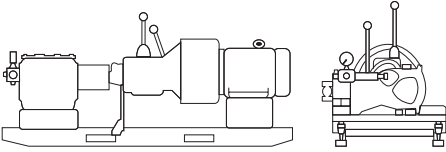


Product Code: TP-80

- TP-80 series Triplex Pumps are generally designated pump water and mud.
- They can be equipped in three different ways as Electrical motor, Diesel engine and Hydraulic driven motor.
- Triplex Pumps spare parts, ceramic cylinders, stainless valves, balls and seals can be easily changed.
- The three cylinders, which are made of steel reinforced ceramic material, are durable against to corrosion and can be changed easily.
- The valves, which are in the form of ball, are made of stainless steel and the valve seats are manufactured from tempered steel.
- The pump safety valve adjusted according to 50 bar pressure.
- If the pressure in the system exceeds these values, then the safety valve activates and by means of this the pump housing is protected against to excessive pressure.
- The pump safety valve can be adjusted to lower values mentioned above.
- The pressure values can be observed with a manometer 0-100 bar.

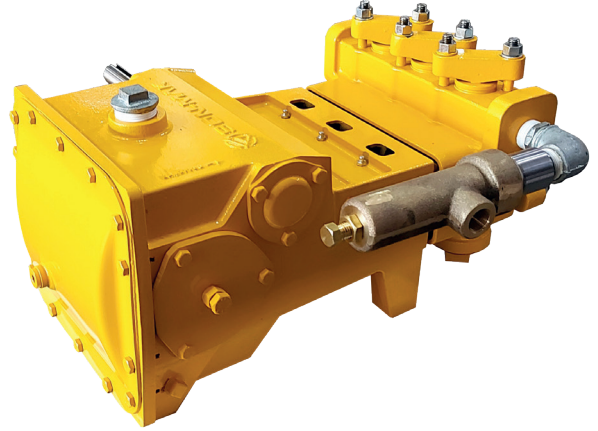
PUMP VARIANT / POMPA ÇEŞİTLERİ

TP-80H	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
 TP80-H TRIPLEX MUD PUMP / HYDRAULIC MOTOR	75	40		117	740	620	450
 TP-80E TRIPLEX MUD PUMP / V-BELT	75	50	V-belt	265	1200	650	850
 TP-80EG TRIPLEX MUD PUMP / ELECTRICAL WITH GEARBOX	16	50	1st Gear	305	1800	800	850
	23	50	2nd Gear				
	38	50	3rd Gear				
	75	50	4th Gear				
 TP-80DG TRIPLEX MUD PUMP / DIESEL WITH GEARBOX	16	50	1st Gear	365	1800	800	950
	23	50	2st Gear				
	38	50	3st Gear				
	75	40	4st Gear				

PUMP SPECIFICATIONS

11.6 BHP Continuous Duty (13.8 BHP Intermittent Duty)

Configuration	Horizontal Triplex Piston
Number of Pistons	3
Stroke Length	57.2 mm (2.25 Inches)
Frame Load Rating	1.27 kg (2800 lbs)
Pump Weight	91 kg (200 lbs)
Direction of Rotation	Top of shaft away from head
Internal Gear Ratio	3.6:1
Intermittent Duty Speed Rating	890 rpm
Continuous Duty Speed Rating	750 rpm
Ball Valve Max Speed Rating	625 rpm
Minumum Speed	360 rpm
Mechanical Efficiency	%85
Lubrication System	Splash, Gravity Return
Lube Oil Capacity	2.15 liters (2.25 Quartz)
Lube Oil Type	SAE 30
Maximum Fluid Temperature	140 °F (250 °F Capability)
	60 °C (-28.9 °C Capacity)
Minumum Fluid Temperature	0 °F (-20 °F Capability)
	-17.8 °C (121 °C Capacity)
Standard Suction Size	38.1 mm (1.50 Inch NPT)
Standard Discharge Size	25.4 mm (1.00 Inch NPT)
Fluid End Material	Cast Iron
Valve Types	Ball Valves, Disc Valves
Hydraulic Motor Mount	SAE C - 4 Bolt with 1.25"-14T



PERFORMANCE RATING

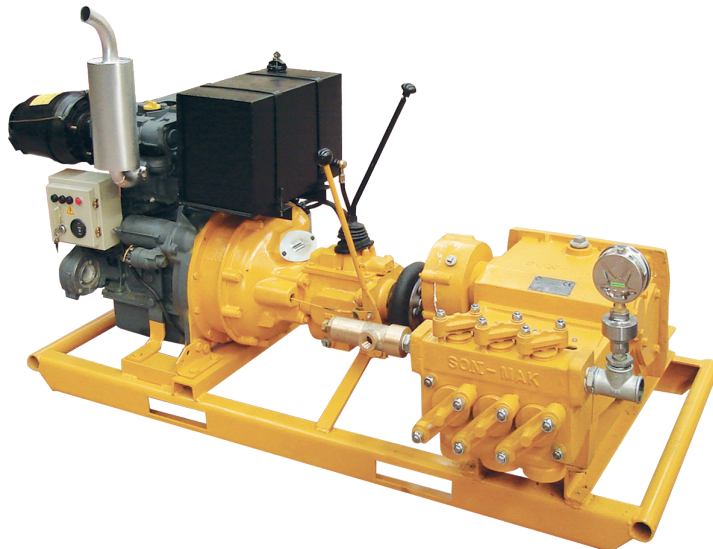
							Pump Capacity at Input Speed (RPM)									
Pump Model	Piston Diameter		Displacement		Maximum Pressure		350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
	mm	Inch	Liter	Gallon	Bar	PSI	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
TP80	57.2	2.25	0.122	0.0323	49	700	43	11.3	76	20.2	86	22.6	92	24.2	109	28.7

* Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation;
 $BHP = (GPM * PSI) / (1714 * 0.85 \text{ or } 0.90)$

* Pump capacities shown are based on %100 volumetric efficiency.

* Dimensions shown are for general sizing purposes and should not be used for construction. Contact Son-Mak for actual dimensions of pump ordered.

* Son-Mak reserves the right to modify this information without prior notice.

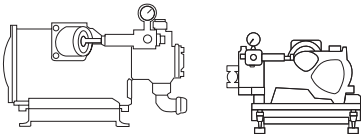


Product Code: TP-135

- TP-135 series Triplex Pumps are generally designated pump water and mud.
- They can be equipped in three different ways as Electrical motor, Diesel engine and Hydraulic driven motor.
- Triplex Pumps spare parts, ceramic cylinders, stainless valves, balls and seals can be easily changed.
- The three cylinders, which are made of steel reinforced ceramic material, are durable against to corrosion and can be changed easily.
- The valves, which are in the form of ball, are made of stainless steel and the valve seats are manufactured from tempered steel.
- The pump safety valve adjusted according to 50 bar pressure.
- If the pressure in the system exceeds these values, then the safety valve activates and by means of this the pump housing is protected against to excessive pressure.
- The pump safety valve can be adjusted to lower values mentioned above, however, it should not be adjusted over 70 bar.
- The pressure values can be observed with a manometer 0-100 bar.

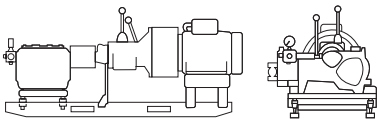
PUMP VARIANT / POMPA ÇEŞİTLERİ

TP-135H



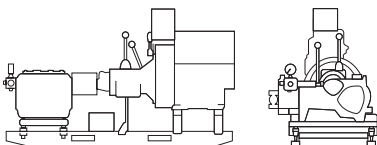
TP-135H TRIPLEX MUD PUMP / HYDRAULIC MOTOR

TP-135EG



TP-135EG TRIPLEX MUD PUMP / ELECTRICAL WITH GEARBOX

TP-135DG



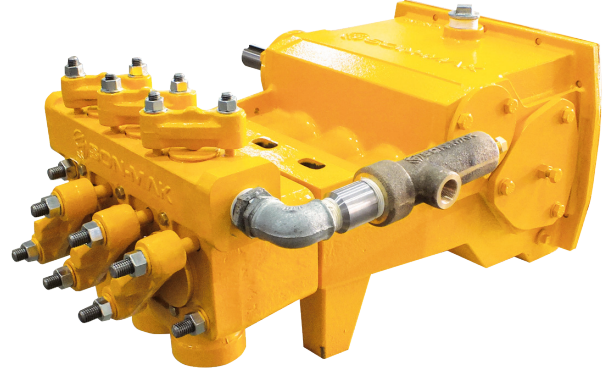
TP-135DG TRIPLEX MUD PUMP / DIESEL WITH GEARBOX

	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
TP-135H	135	35		205	880	775	520
TP-135EG	30	70	1st Gear	485	1800	1000	850
	45	70	2st Gear				
	75	70	3st Gear				
	135	45	4st Gear				
TP-135DG	30	70	1st Gear	535	1800	1000	850
	45	70	2nd Gear				
	75	70	3rd Gear				
	135	45	4th Gear				

PUMP SPECIFICATIONS

30 BHP Continuous Duty (36 BHP Intermittent Duty)

Configuration	Horizontal Triplex Piston
Number of Pistons	3
Stroke Length	69.9 mm (2.75 Inches)
Frame Load Rating	2.721 kg (6000 lbs)
Pump Weight	210 kg (460 lbs)
Direction of Rotation	Top of shaft away from head
Internal Gear Ratio	3.6:1
Intermittent Duty Speed Rating	1275 rpm
Continuous Duty Speed Rating	900 rpm
Ball Valve Max Speed Rating	1050 rpm
Minumum Speed	360 rpm
Mechanical Efficiency	%85
Lubrication System	Splash, Gravity Return
Lube Oil Capacity	3.78 liters (1 Gallon)
Lube Oil Type	SAE 30
Maximum Fluid Temperature	140 °F (250 °F Capability)
	60 °C (121 °C Capacity)
Minumum Fluid Temperature	0 °F (-20 °F Capability)
	-17.8 °C (-28.9 °C Capacity)
Standard Suction Size	63.5 mm (2.50 Inch NPT)
Standard Discharge Size	31.8 mm (1.25 Inch NPT)
Fluid End Material	Cast Iron
Valve Types	Ball Valves, Disc Valves
Hydraulic Motor Mount	SAE C - 4 Bolt with 1.25"-14T



PERFORMANCE RATING

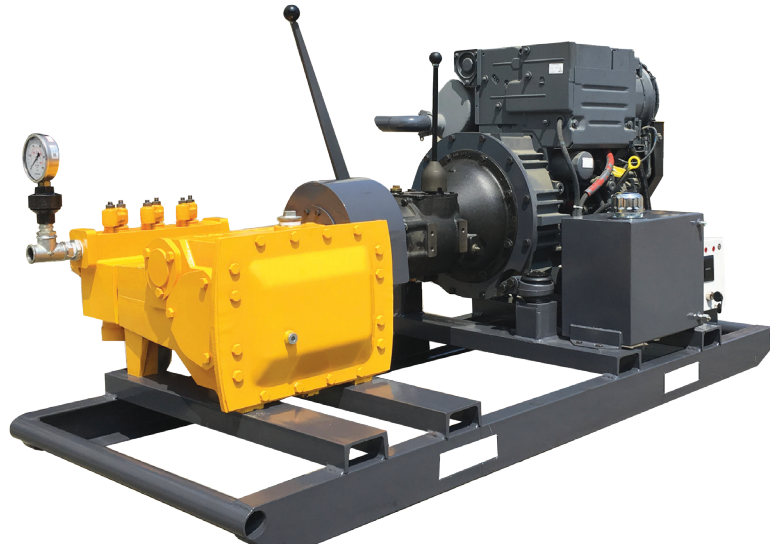
							Pump Capacity at Input Speed (RPM)									
Pump Model	Piston Diameter		Displacement		Maximum Pressure		350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
	mm	Inch	Liter	Gallon	Bar	PSI	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
TP135	69.9	2.75	0.223	0.0589	68.95	1000	80.25	21.2	112	29.5	141	37.4	167	44.2	200	53

* Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation;
 $BHP = (GPM * PSI) / (1714 * 0.85 \text{ or } 0.90)$

* Pump capacities shown are based on %100 volumetric efficiency.

* Dimensions shown are for general sizing purposes and should not be used for construction. Contact Son-Mak for actual dimensions of pump ordered.

* Son-Mak reserves the right to modify this information without prior notice.

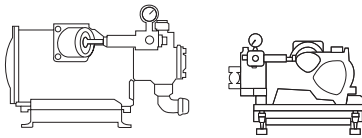


Product Code: TP-220

- TP-220 series Triplex Pumps are generally designated pump water and mud.
- They can be equipped in three different ways as Electrical motor, Diesel engine and Hydraulic driven motor.
- Triplex Pumps spare parts, ceramic cylinders, stainless valves, balls and seals can be easily changed.
- The three cylinders, which are made of steel reinforced ceramic material, are durable against to corrosion and can be changed easily.
- The valves, which are in the form of ball, are made of stainless steel and the valve seats are manufactured from tempered steel.
- The pump safety valve adjusted according to 50 bar pressure.
- If the pressure in the system exceeds these values, then the safety valve activates and by means of this the pump housing is protected against to excessive pressure.
- The pump safety valve can be adjusted to lower values mentioned above, however, it should not be adjusted over 70 bar.
- The pressure values can be observed with a manometer 0-100 bar.

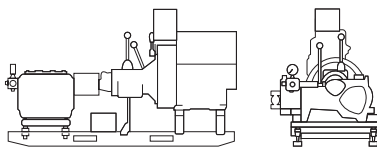
PUMP VARIANT / POMPA ÇEŞİTLERİ

TP-220H



TP-220H TRIPLEX MUD PUMP / HYDRAULIC MOTOR

TP-220DG



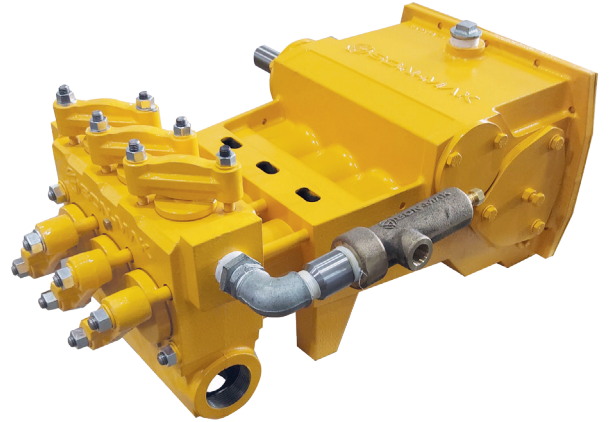
TP-220DG TRIPLEX MUD PUMP DIESEL WITH GEARBOX

Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
				L	W	H
200	35		250	880	775	520
50	70	1st Gear	660	1800	1000	850
70	70	2st Gear				
110	70	3st Gear				
220	45	4st Gear				

PUMP SPECIFICATIONS

37 BHP Continuous Duty (52 BHP Intermittent Duty)

Configuration	Horizontal Triplex Piston
Number of Pistons	3
Stroke Length	69.9 mm (2.75 Inches)
Frame Load Rating	2.721 kg (6000 lbs)
Pump Weight	200 kg (440 lbs)
Direction of Rotation	Top of shaft away from head
Internal Gear Ratio	3.6:1
Intermittent Duty Speed Rating	900 rpm
Continuous Duty Speed Rating	750 rpm
Ball Valve Max Speed Rating	635 rpm
Minumum Speed	360 rpm
Mechanical Efficiency	%85
Lubrication System	Splash, Gravity Return
Lube Oil Capacity	3.78 liters (1 Gallon)
Lube Oil Type	SAE 30
Maximum Fluid Temperature	140 °F (250 °F Capability)
	60 °C (121 °C Capacity)
Minumum Fluid Temperature	0 °F (-20 °F Capability)
	-17.8 °C (-28.9 °C Capacity)
Standard Suction Size	50.8 mm (2.00 Inch NPT)
Standard Discharge Size	31.8 mm (1.25 Inch NPT)
Fluid End Material	Cast Iron
Valve Types	Ball Valves, Disc Valves
Hydraulic Motor Mount	SAE C - 4 Bolt with 1.25"-14T



PERFORMANCE RATING

							Pump Capacity at Input Speed (RPM)									
Pump Model	Piston Diameter		Displacement		Maximum Pressure		350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
	mm	Inch	Liter	Gallon	Bar	PSI	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
TP220	69.9	2.75	0.223	0.0589	68.95	1000	80.25	21.2	112	29.5	200	53	234	61.9	284	75.1

* Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation;
 $BHP = (GPM * PSI) / (1714 * 0.85 \text{ or } 0.90)$

* Pump capacities shown are based on %100 volumetric efficiency.

* Dimensions shown are for general sizing purposes and should not be used for construction. Contact Son-Mak for actual dimensions of pump ordered.

* Son-Mak reserves the right to modify this information without prior notice.

