

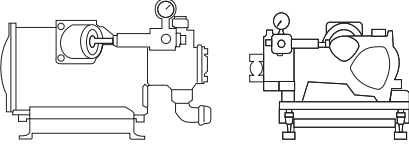
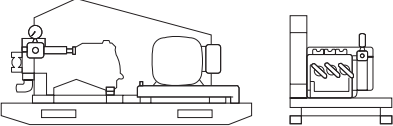
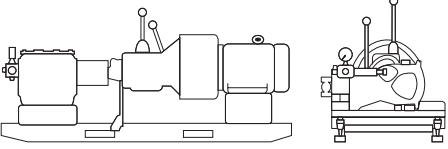

TP SERIES
MUD PUMPS

TP-80 Triplex Water Pump

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.

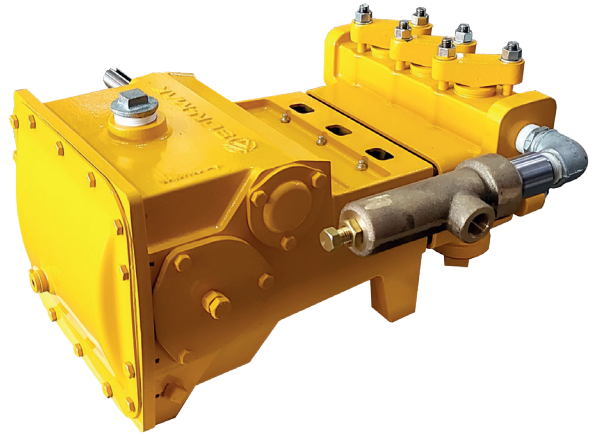
PUMP VARIANT / POMPA ÇEŞİTLERİ

TP-80H	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
 <p>TP80-H TRIPLEX MUD PUMP / HYDRAULIC MOTOR</p>	75	40		117	740	620	450
 <p>TP-80E TRIPLEX MUD PUMP / V-BELT</p>	75	50	V-belt	265	1200	650	850
 <p>TP-80EG TRIPLEX MUD PUMP / ELECTRICAL WITH GEARBOX</p>	16	50	1st Gear	305	1800	800	850
	23	50	2nd Gear				
	38	50	3rd Gear				
	75	50	4th Gear				
 <p>TP-80DG TRIPLEX MUD PUMP / DIESEL WITH GEARBOX</p>	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 Model	Piston Diameter		Displacement		Maximum Pressure		Pump Capacity at Input Speed (RPM)									
							350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
							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;
 $BHP = (GPM \times PSI) / (1714 \times 0.85 \text{ or } 0.90)$

* 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.

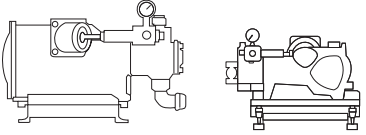
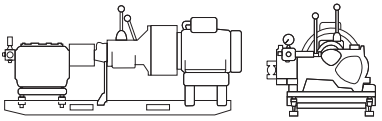
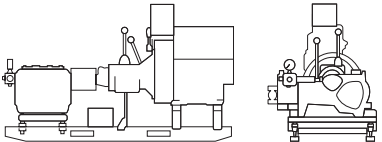


TP-135 Triplex Water Pump

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.

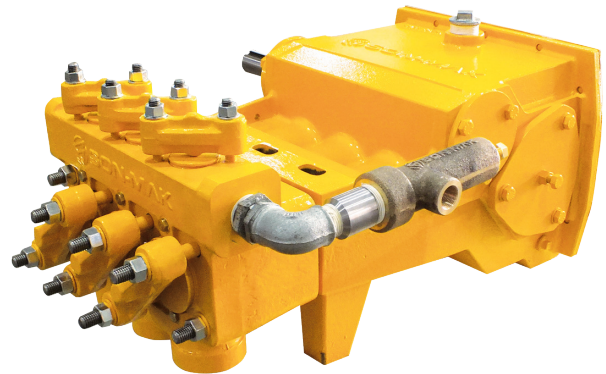
PUMP VARIANT / POMPA ÇEŞİTLERİ

TP-135H	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
 <p>TP-135H TRIPLEX MUD PUMP / HYDRAULIC MOTOR</p>	135	35		205	880	775	520
 <p>TP-135EG TRIPLEX MUD PUMP / ELECTRICAL WITH GEARBOX</p>	30	70	1st Gear	485	1800	1000	850
	45	70	2st Gear				
	75	70	3st Gear				
	135	45	4st Gear				
 <p>TP-135DG TRIPLEX MUD PUMP / DIESEL WITH GEARBOX</p>	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
Minimum 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)
Minimum 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

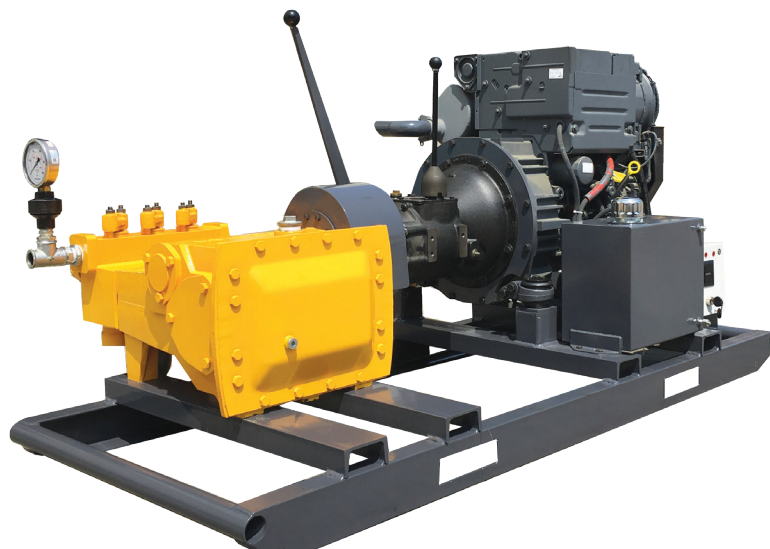
Pump Model	Piston Diameter		Displacement		Maximum Pressure		Pump Capacity at Input Speed (RPM)									
							350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
							lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
TP135	69.9	2.75	0.223	0.0589	68.95	1000	80.25	21.2	112	29.5	141	37.4	167	44.2	200	53

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

* 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.

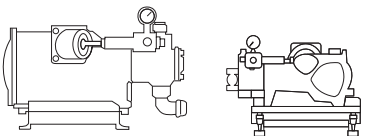
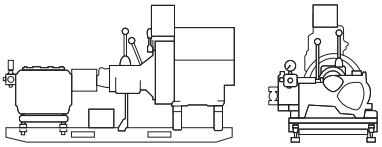


TP-220 Triplex Water Pump

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.

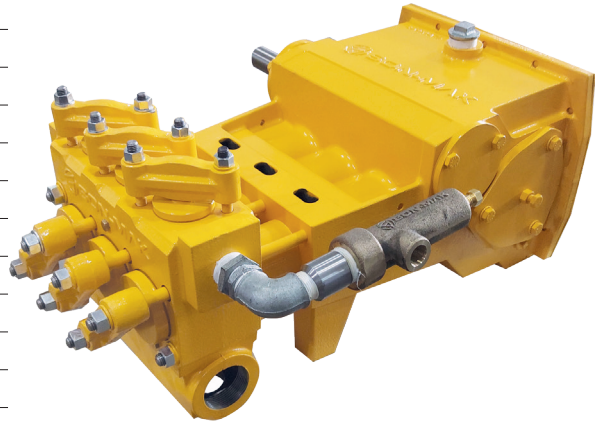
PUMP VARIANT / POMPA ÇEŞİTLERİ

TP-220H	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
 <p>TP-220H TRIPLEX MUD PUMP / HYDRAULIC MOTOR</p>	200	35		250	880	775	520
 <p>TP-220DG TRIPLEX MUD PUMP DIESEL WITH GEARBOX</p>	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
Minimum 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)
Minimum 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

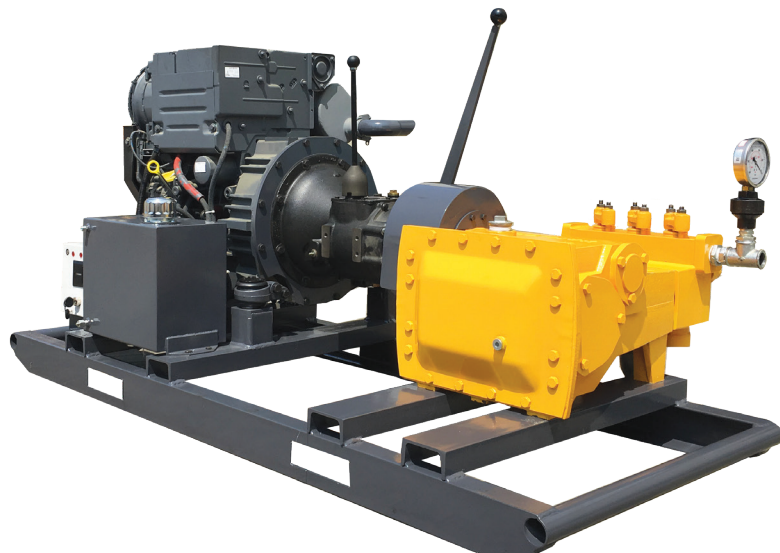
Pump Model	Piston Diameter		Displacement		Maximum Pressure		Pump Capacity at Input Speed (RPM)									
							350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
							lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
TP220	69.9	2.75	0.223	0.0589	68.95	1000	80.25	21.2	112	29.5	200	53	234	61.9	284	75.1

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

* 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.





SON-MAK

MAKİNE - İNŞAAT - SONDAJ SAN. TİC. LTD. ŞTİ.

Kayapa I. Organize Sanayi Bölgesi

Kayapa Sanayi Bulvarı No:4/1 16280 Nilüfer BURSA - TÜRKİYE

Tel: +90 224 440 0 555 (pbx) Fax: +90 224 482 44 39

info@son-mak.com.tr www.son-mak.com.tr

© Copyright 2021, Son-Mak Makine, Bursa - Turkey.
Any unauthorized use or copying of the contents or any part thereof is prohibited. This applies in particular to trademarks, model denominations, part numbers and drawings. Illustrations and photos in this brochure may show equipment with optional extras.
Specifications and equipment subjects to change without notice. Consult to Son-Mak for specific information.