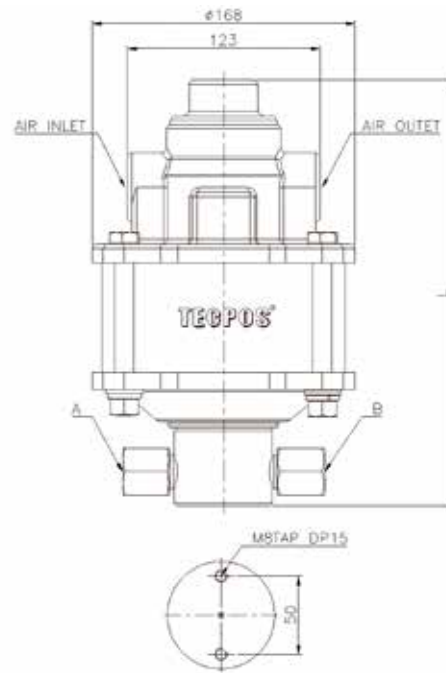


AIR DRIVEN LIQUID SINGLE PUMPS

TL Series

- This “Air Driven Liquid single or Double Pump” used 1~7bar air pressure is available with the highest ratio capable of hydraulic pressures up to 3500bar(50,700psi) and it can be produced by various customizing.

► TL Model Maximum Pressure 2800bar

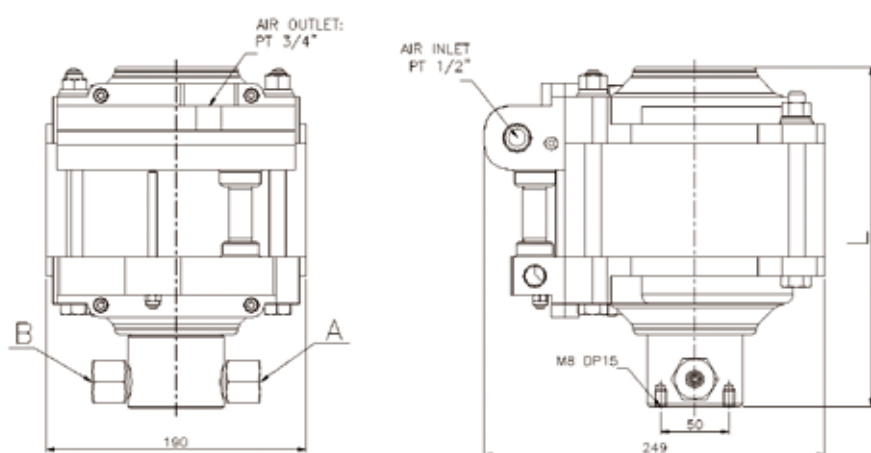


Specifications

Model	Ratio	Maximum Pressure (bar) (at air 7bar)	Maximum flow rate (ℓ /min)	A (Inlet)	B (Outlet)	L (Length)
TL-0070-150	10:1	70	22	NPT 1"	NPT 1/2"	315mm
TL-0350-150	40:1	350	4.2	NPT 1/2"	NPT 1/2"	280mm
TL-0490-150	60:1	490	3.0	NPT 1/2"	NPT 1/2"	280mm
TL-0700-150	100:1	700	2.2	NPT 1/2"	NPT 1/2"	280mm
TL-1190-150	170:1	1190	1.4	NPT 3/8"	NPT 3/8"	280mm
TL-1680-150	240:1	1680	0.9	NPT 3/8"	PF 3/8"	280mm
TL-2100-150	300:1	2100	0.7	NPT 3/8"	PF 3/8"	290mm
TL-2800-150	400:1	2800	0.6	NPT 3/8"	PF 3/8"	290mm

AIR DRIVEN LIQUID SINGLE PUMPS

TSL Series

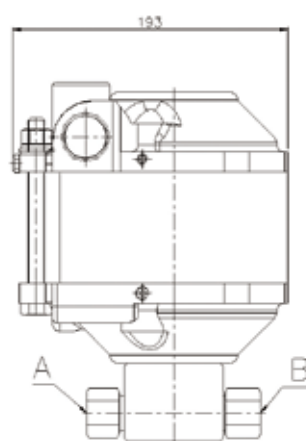
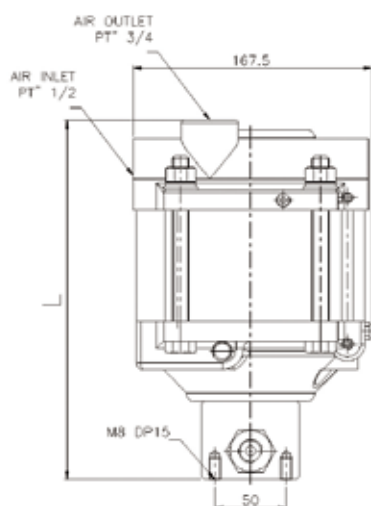


Specifications

Model	Ratio	Maximum Pressure (bar) (at air 7bar)	Maximum flow rate (ℓ /min)	A (Inlet)	B (Outlet)	L (Length)
TSL-0100-180	15:1	100	17.5	NPT 1"	NPT 1/2"	275mm
TSL-0280-180	40:1	280	6.8	NPT 1/2"	NPT 1/2"	245mm
TSL-0420-180	60:1	420	4.2	NPT 1/2"	NPT 1/2"	245mm
TSL-0560-180	80:1	560	3.5	NPT 1/2"	NPT 1/2"	245mm
TSL-0700-180	100:1	700	2.85	NPT 1/2"	NPT 1/2"	245mm
TSL-1000-180	150:1	1000	2.0	NPT 3/8"	NPT 3/8"	245mm
TSL-1500-180	220:1	1500	1.25	NPT 3/8"	NPT 3/8"	245mm
TSL-2200-180	320:1	2200	0.85	NPT 3/8"	PF 3/8"	250mm
TSL-2800-180	400:1	2800	0.7	NPT 3/8"	PF 3/8"	250mm
TSL-3500-180	500:1	3500	0.55	NPT 3/8"	PF 3/8"	250mm

AIR DRIVEN LIQUID SINGLE PUMPS

TSS Series

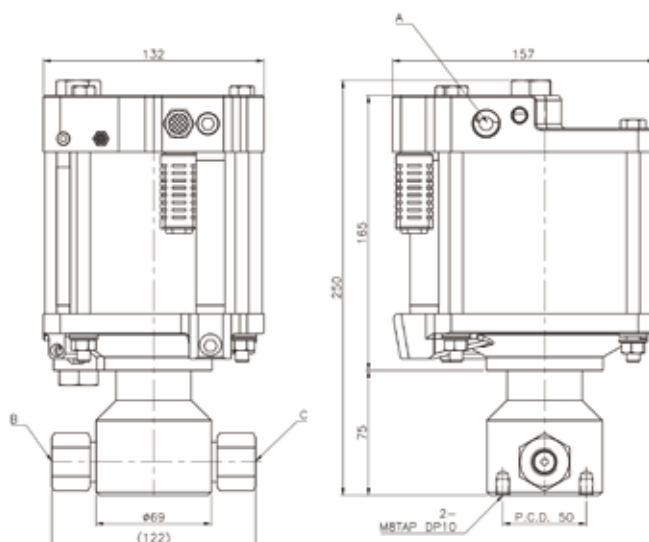


Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (Inlet)	B (Outlet)	L (Length)
TSS-0070-150	10:1	70	19	NPT 1"	NPT 1/2"	270mm
TSS-0190-150	28:1	190	7.3	NPT 1/2"	NPT 1/2"	240mm
TSS-0380-150	55:1	380	3.7	NPT 1/2"	NPT 1/2"	240mm
TSS-0450-150	65:1	450	3.0	NPT 1/2"	NPT 1/2"	240mm
TSS-0700-150	100:1	700	2.2	NPT 1/2"	NPT 1/2"	247mm
TSS-1000-150	150:1	1000	1.4	NPT 3/8"	NPT 3/8"	247mm
TSS-1500-150	220:1	1500	1.0	NPT 3/8"	NPT 3/8"	247mm
TSS-1900-150	270:1	1900	0.75	NPT 3/8"	PF 3/8"	252mm
TSS-2400-150	350:1	2400	0.6	NPT 3/8"	PF 3/8"	252mm
TSS-3200-150	460:1	3200	0.5	NPT 3/8"	PF 3/8"	252mm
TSS-3600-150	460:1	3600 (at air 8bar)	0.5	NPT 3/8"	PF 3/8"	252mm

AIR DRIVEN LIQUID SINGLE PUMPS

TSS Series

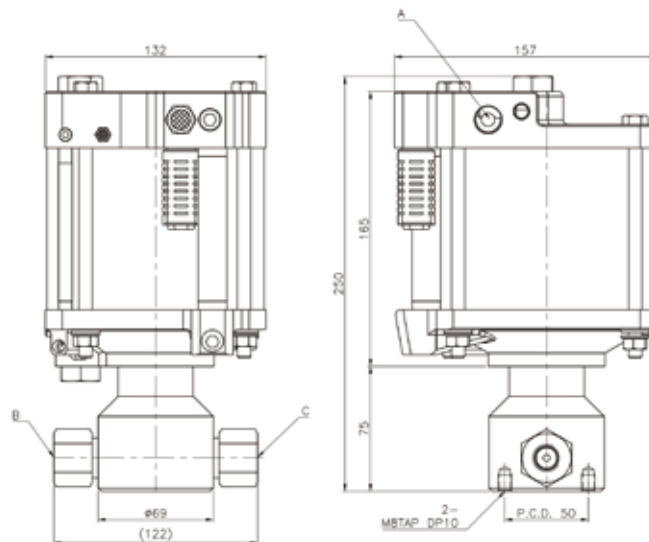


Specifications

Model	Ratio	Maximum Pressure (bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (Air Inlet)	B (Flow Outlet)	C (Flow Inlet)
TSS-0500-130	75:1	500	2.3	PT3/8-19	NPT1/2-14	NPT1/2-14
TSS-1000-130	140:1	1000	1.1	PT3/8-19	NPT1/2-14	NPT1/2-14
TSS-1100-130	170:1	1200	0.9	PT3/8-19	PF3/8-19	NPT3/8-18
TSS-1400-130	200:1	1400	0.8	PT3/8-19	PF3/8-19	NPT3/8-18
TSS-1800-130	260:1	1800	0.6	PT3/8-19	PF3/8-19	NPT3/8-18
TSS-2400-130	350:1	2400	0.5	PT3/8-19	PF3/8-19	NPT3/8-18

AIR DRIVEN LIQUID SINGLE PUMPS

TSS Series

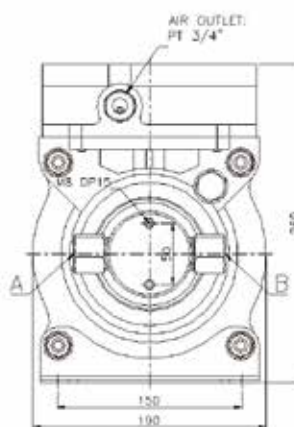
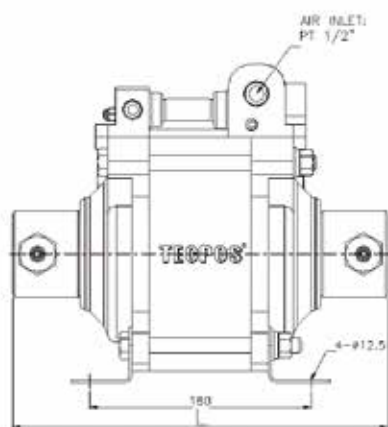


Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(l /min)	A (Air Inlet)	B (Flow Outlet)	C (Flow Inlet)
TSS-0450-120	65:1	450	2.0	PT3/8-19	NPT1/2-14	NPT1/2-14
TSS-0800-120	110:1	800	1.1	PT3/8-19	NPT1/2-14	NPT1/2-14
TSS-1000-120	140:1	1000	0.9	PT3/8-19	PF3/8-19	NPT3/8-18
TSS-1200-120	170:1	1200	0.8	PT3/8-19	PF3/8-19	NPT3/8-18
TSS-1500-120	220:1	1500	0.6	PT3/8-19	PF3/8-19	NPT3/8-18
TSS-2400-120	350:1	2400	0.4	PT3/8-19	PF3/8-19	NPT3/8-18

AIR DRIVEN LIQUID DOUBLE PUMPS

TDL Series

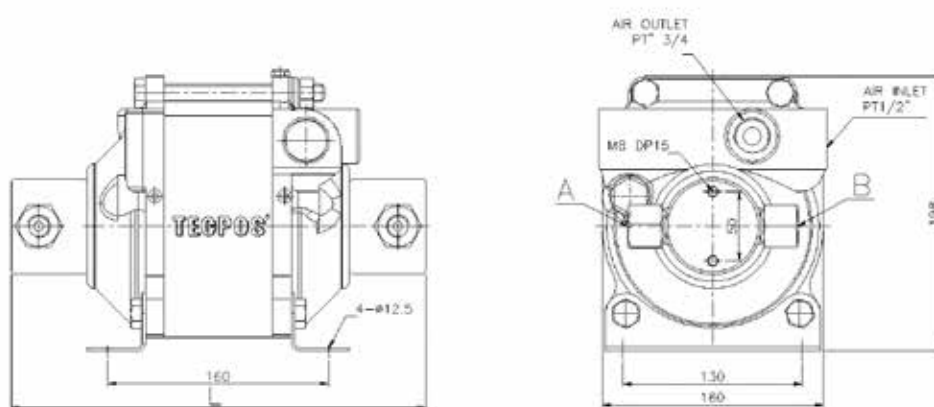


Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(l /min)	A (Inlet)	B (Outlet)	L (Length)
TDL-0105-180	15:1	105	35.0	NPT 1"	NPT 1/2"	355mm
TDL-0280-180	40:1	280	13.6	NPT 1/2"	NPT 1/2"	295mm
TDL-0420-180	60:1	420	8.4	NPT 1/2"	NPT 1/2"	295mm
TDL-0560-180	80:1	560	7.0	NPT 1/2"	NPT 1/2"	295mm
TDL-0700-180	100:1	700	5.7	NPT 1/2"	NPT 1/2"	280mm
TDL-1000-180	150:1	1000	4.0	NPT 3/8"	NPT 3/8"	280mm
TDL-1500-180	220:1	1500	2.5	NPT 3/8"	NPT 3/8"	280mm
TDL-2200-180	320:1	2200	1.7	NPT 3/8"	PF 3/8"	320mm
TDL-2800-180	400:1	2800	1.4	NPT 3/8"	PF 3/8"	320mm
TDL-3500-180	500:1	3500	1.1	NPT 3/8"	PF 3/8"	320mm

AIR DRIVEN LIQUID DOUBLE PUMPS

TDS Series

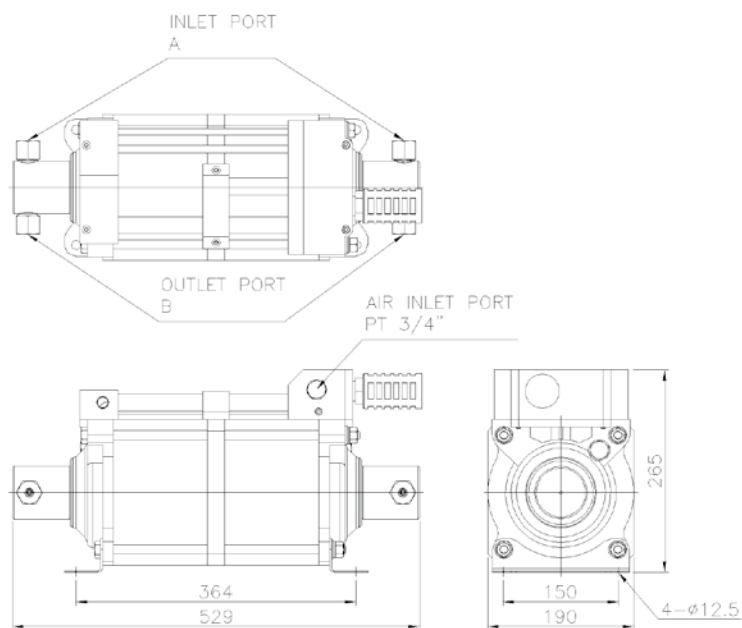


Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (Inlet)	B (Outlet)	L (Length)
TDS-0070-150	10:1	70	38	NPT 1"	NPT 1/2"	270mm
TDS-0190-150	28:1	190	14.5	NPT 1/2"	NPT 1/2"	240mm
TDS-0380-150	55:1	380	7.4	NPT 1/2"	NPT 1/2"	240mm
TDS-0450-150	65:1	450	6.0	NPT 1/2"	NPT 1/2"	240mm
TDS-0700-150	100:1	700	4.4	NPT 1/2"	NPT 1/2"	290mm
TDS-1000-150	150:1	1000	2.8	NPT 3/8"	NPT 3/8"	290mm
TDS-1500-150	220:1	1500	2.0	NPT 3/8"	NPT 3/8"	300mm
TDS-1900-150	270:1	1900	1.5	NPT 3/8"	PF 3/8"	300mm
TDS-2400-150	350:1	2400	1.2	NPT 3/8"	PF 3/8"	300mm
TDS-3200-150	460:1	3200	1.0	NPT 3/8"	PF 3/8"	300mm
TDS-3600-150	460:1	3600 (at air 8bar)	1.0	NPT 3/8"	PF 3/8"	300mm

AIR DRIVEN LIQUID DUAL DOUBLE PUMPS

TDD Series

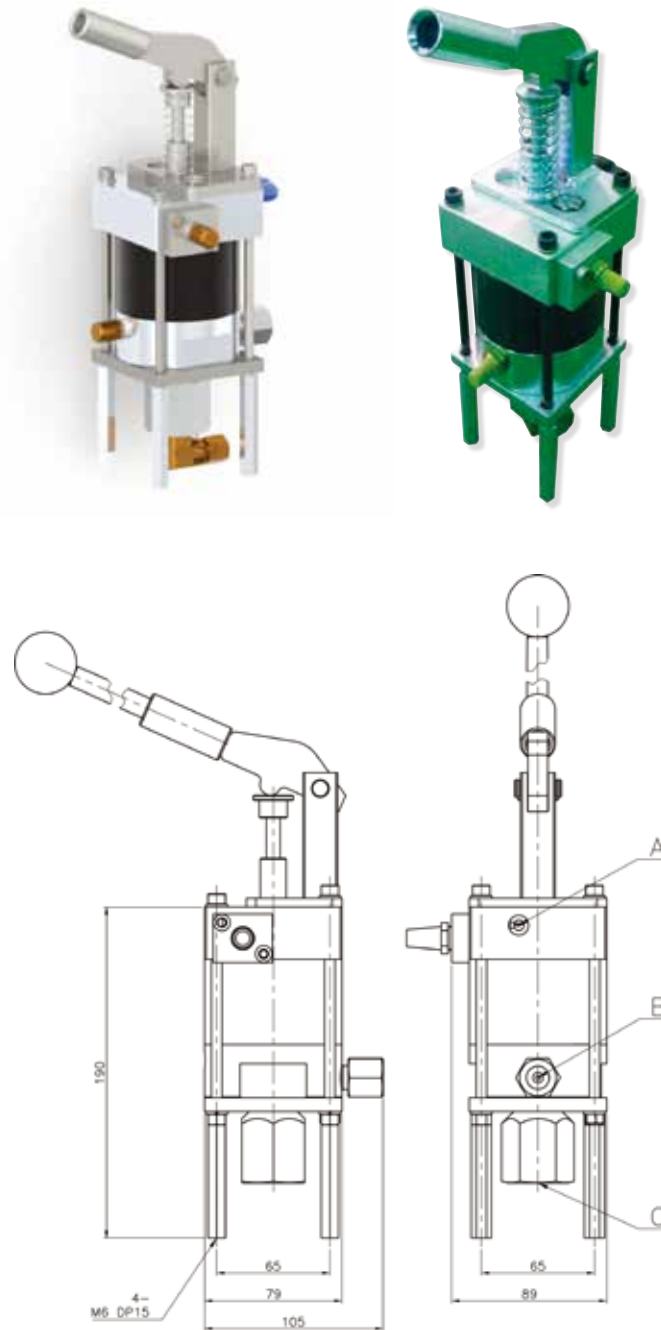


Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (Inlet)	B (Outlet)
TDD-0280-180	40:1	280	16.5	NPT 1/2"	NPT 1/2"
TDD-0490-180	70:1	490	10.5	NPT 1/2"	NPT 1/2"
TDD-0700-180	100:1	700	7.0	NPT 1/2"	NPT 1/2"
TDD-0900-180	130:1	900	5.4	NPT 1/2"	NPT 1/2"
TDD-1100-180	160:1	1100	4.5	NPT 1/2"	NPT 1/2"
TDD-1500-180	220:1	1500	3.3	NPT 3/8"	NPT 3/8"

AIR DRIVEN LIQUID HAND OPERATED PUMP

TSM

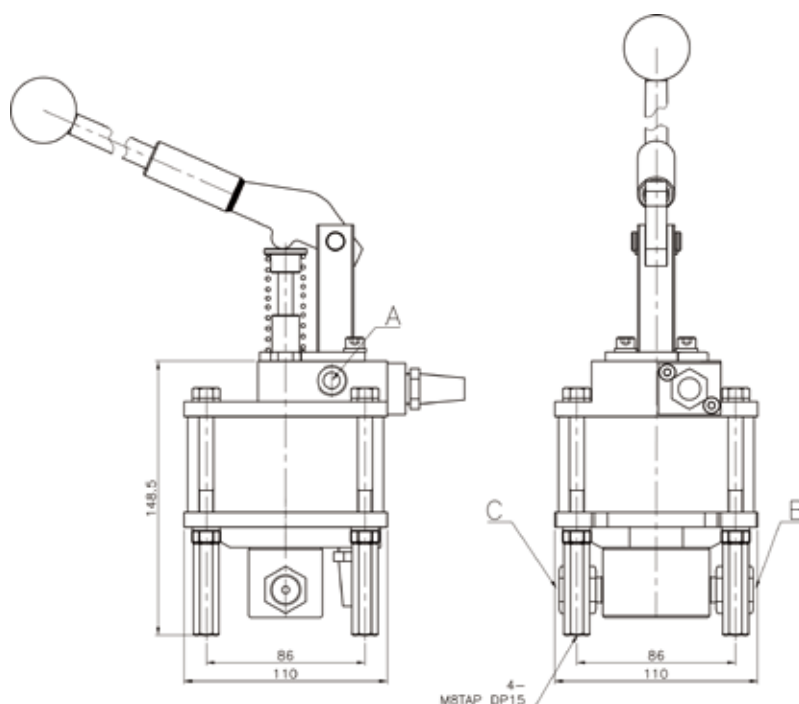


Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (Air Inlet)	B (Flow Outlet)	C (Flow Inlet)
TSM-1500-75	220:1	1540	0.36	PT 1/4"	M14 x 1.5	PT 3/8"

AIR DRIVEN LIQUID HAND OPERATED PUMP

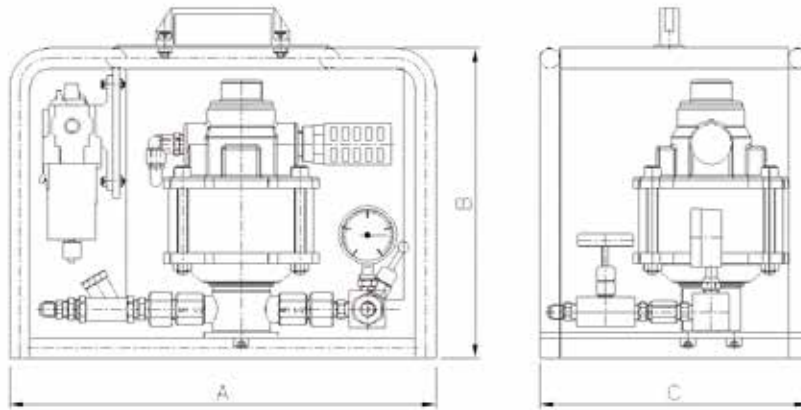
TSM



Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (Air Inlet)	B (Flow Outlet)	C (Flow Inlet)
TSM-1500-100	225:1	1500	0.65	PT3/8-19	M14x1.5	PT3/8-19

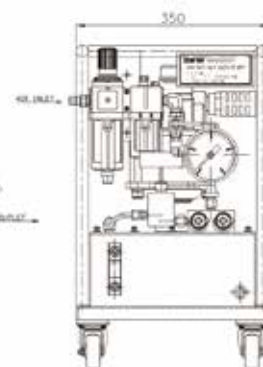
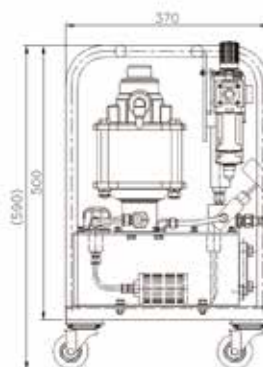
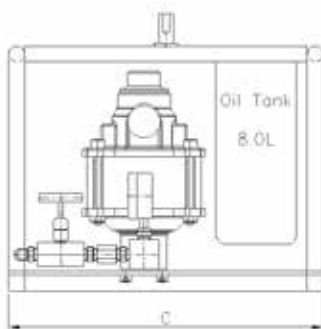
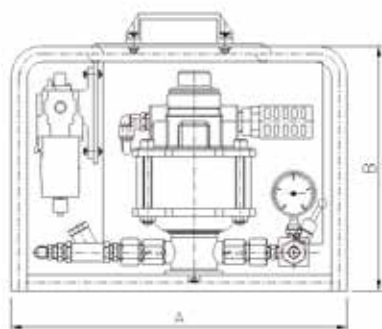
AIR DRIVEN HYDRAULIC & WATER TEST PUMPS **TLF Series**



Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (mm)	B (mm)	c (mm)
TLF-0070-150	10:1	70	22	460	345	280
TLF-0280-150	40:1	280	4.2			
TLF-0420-150	60:1	420	3.0			
TLF-0700-150	100:1	700	2.2	480		
TLF-1190-150	170:1	1190	1.4	530		
TLF-1680-150	240:1	1680	0.9			
TLF-2100-150	300:1	2100	0.7			
TLF-2800-150	400:1	2800	0.6			

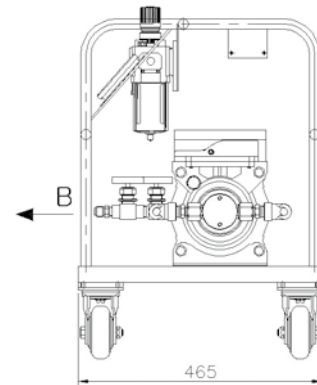
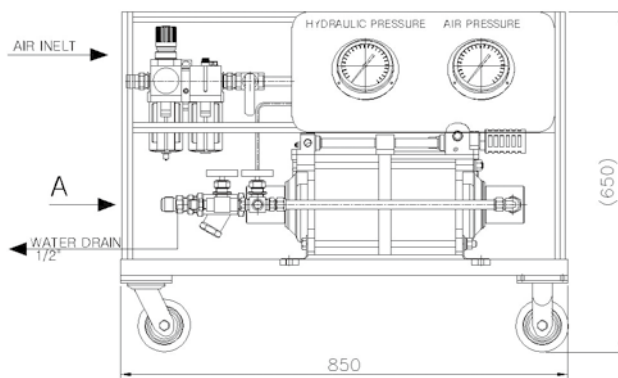
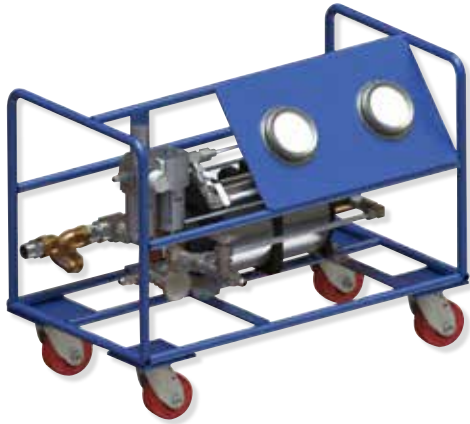
AIR DRIVEN HYDRAULIC & WATER TEST PUMPS **TLU Series**



Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (mm)	B (mm)	c (mm)	Oil Tank (liter)
TLU-0070-150	10:1	70	22	460	345	430	8.0
TLU-0350-150	50:1	350	4.2				
TLU-0490-150	70:1	490	3.0				
TLU-0700-150	100:1	700	2.2	480			
TLU-1190-150	170:1	1190	1.4	530			
TLU-1680-150	240:1	1680	0.9				
TLU-2100-150	300:1	2100	0.7				
TLU-2800-150	400:1	2800	0.6				

AIR DRIVEN HYDRAULIC & WATER TEST PUMPS **TDDU Series**



Specifications

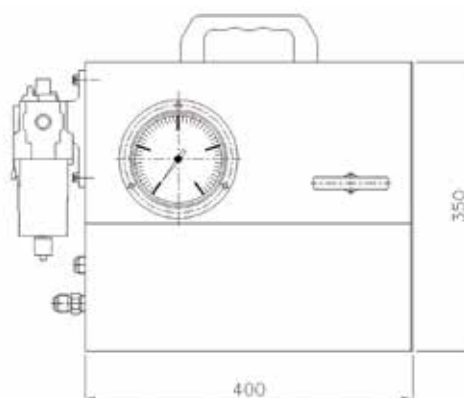
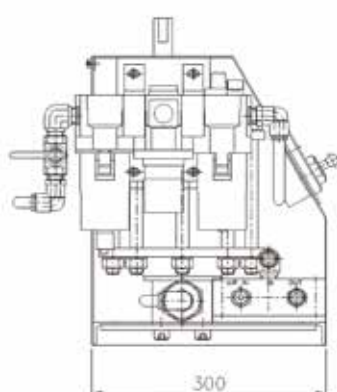
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	A (Inlet)	B (Outlet)
TDDU-0280-180	40:1	280	16.5	NPT 1"	NPT 1/2"
TDDU-0490-180	70:1	490	10.5	NPT 1/2"	NPT 1/2"
TDDU-0700-180	100:1	700	7.0	NPT 1/2"	NPT 1/2"
TDDU-0900-180	130:1	900	5.4	NPT 1/2"	NPT 1/2"
TDDU-1100-180	160:1	1100	4.5	NPT 1/2"	NPT 1/2"
TDDU-1500-180	220:1	1500	3.3	NPT 3/8"	NPT 3/8"

AIR DRIVEN HYDRAULIC POWER UNIT

TLC Series



TL Series



Specifications

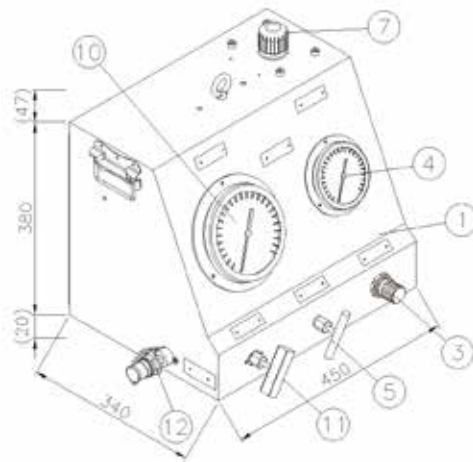
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(l /min)
TLC-0070-150	10:1	70	22
TLC-0350-150	50:1	350	4.2
TLC-0490-150	70:1	490	3.0
TLC-0700-150	100:1	700	2.2
TLC-1190-150	170:1	1190	1.4
TLC-1680-150	240:1	1680	0.9
TLC-2100-150	300:1	2100	0.7
TLC-2800-150	400:1	2800	0.6

AIR DRIVEN HYDRAULIC POWER UNIT

TSSU Series



TSS Series



- 12 OUTLET COUPLER
- 11 DRAIN VALVE
- 10 PRESSURE GAUGE
- 7 AIR BREATHER
- 5 CYCLING VALVE
- 4 AIR PRES' GUAGE
- 3 REGULATOR
- 1 AIR INLET PORT

Specifications

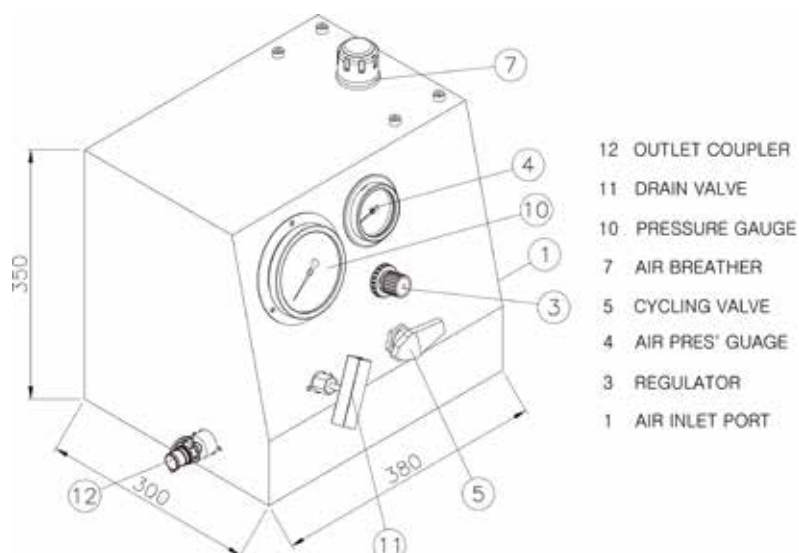
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(l /min)	Oil Tank (liter)
TSSU-0070-150	10:1	70	19	6.5
TSSU-0190-150	28:1	190	7.3	
TSSU-0380-150	55:1	380	3.7	
TSSU-0450-150	65:1	450	3.0	
TSSU-0700-150	100:1	700	2.2	
TSSU-1000-150	150:1	1000	1.4	
TSSU-1500-150	220:1	1500	1.0	
TSSU-1900-150	270:1	1900	0.75	
TSSU-2400-150	350:1	2400	0.6	
TSSU-3200-150	460:1	3200	0.5	
TSSU-3600-150	460:1	3600 (at air 8bar)	0.5	

AIR DRIVEN HYDRAULIC POWER UNIT

TSSU Series



TSS Series



- 12 OUTLET COUPLER
- 11 DRAIN VALVE
- 10 PRESSURE GAUGE
- 7 AIR BREATHER
- 5 CYCLING VALVE
- 4 AIR PRESSURE GAUGE
- 3 REGULATOR
- 1 AIR INLET PORT

Specifications

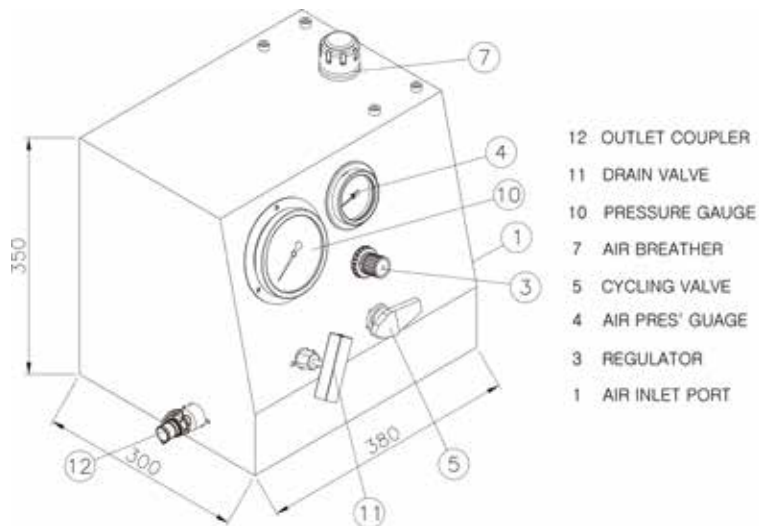
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(l /min)	Oil Tank (liter)
TSSU-0500-130	75:1	500	2.3	6.5
TSSU-1000-130	140:1	1000	1.1	
TSSU-1100-130	170:1	1200	0.9	
TSSU-1400-130	200:1	1400	0.8	
TSSU-1800-130	260:1	1800	0.6	
TSSU-2400-130	350:1	2400	0.5	

AIR DRIVEN HYDRAULIC POWER UNIT

TSSU Series



TSS Series



Specifications

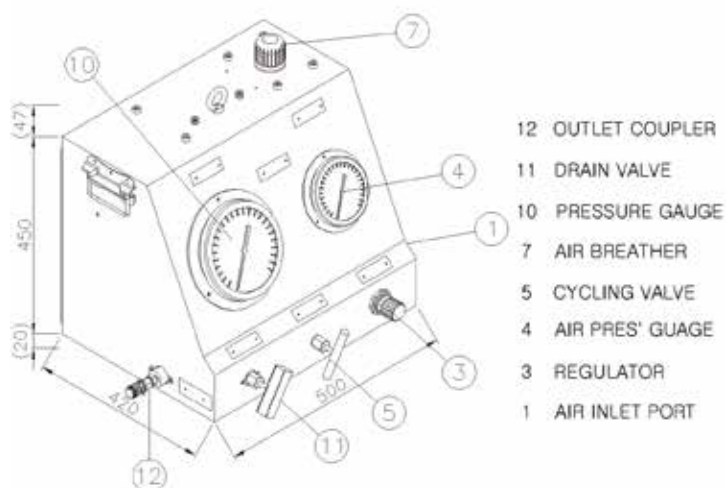
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	Oil Tank (liter)
TSSU-0450-120	65:1	450	2.0	6.5
TSSU-0800-120	110:1	800	1.1	
TSSU-1000-120	140:1	1000	0.9	
TSSU-1200-120	170:1	1200	0.8	
TSSU-1500-120	220:1	1500	0.6	
TSSU-2400-120	350:1	2400	0.4	

AIR DRIVEN HYDRAULIC POWER UNIT

TDLU Series



TDL Series



- 12 OUTLET COUPLER
- 11 DRAIN VALVE
- 10 PRESSURE GAUGE
- 7 AIR BREATHER
- 5 CYCLING VALVE
- 4 AIR PRES' GAUGE
- 3 REGULATOR
- 1 AIR INLET PORT

Specifications

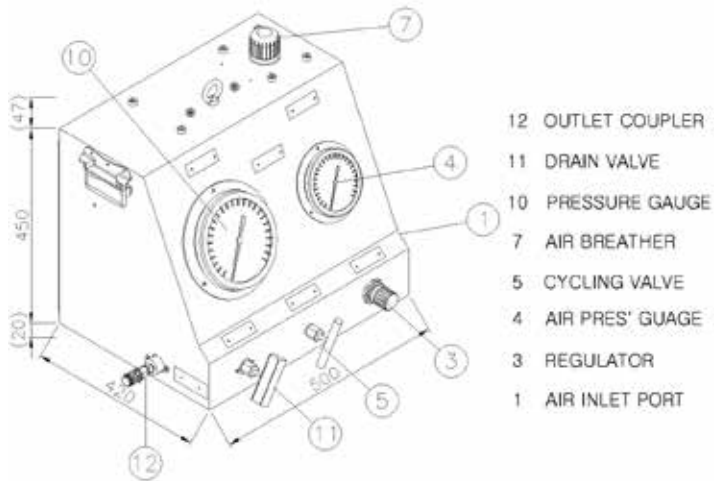
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(l /min)	Oil Tank (liter)
TDLU-0100-180	15:1	100	35.0	8.0
TDLU-0280-180	40:1	280	13.6	
TDLU-0420-180	60:1	420	8.4	
TDLU-0560-180	80:1	560	7.0	
TDLU-0700-180	100:1	700	5.7	
TDLU-1000-180	150:1	1000	4.0	
TDLU-1500-180	220:1	1500	2.5	
TDLU-2200-180	320:1	2200	1.7	
TDLU-2800-180	400:1	2800	1.4	
TDLU-3500-180	500:1	3500	1.1	

AIR DRIVEN HYDRAULIC POWER UNIT

TDSU Series



TDS Series

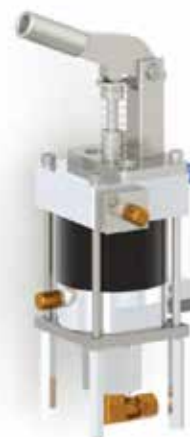


Specifications

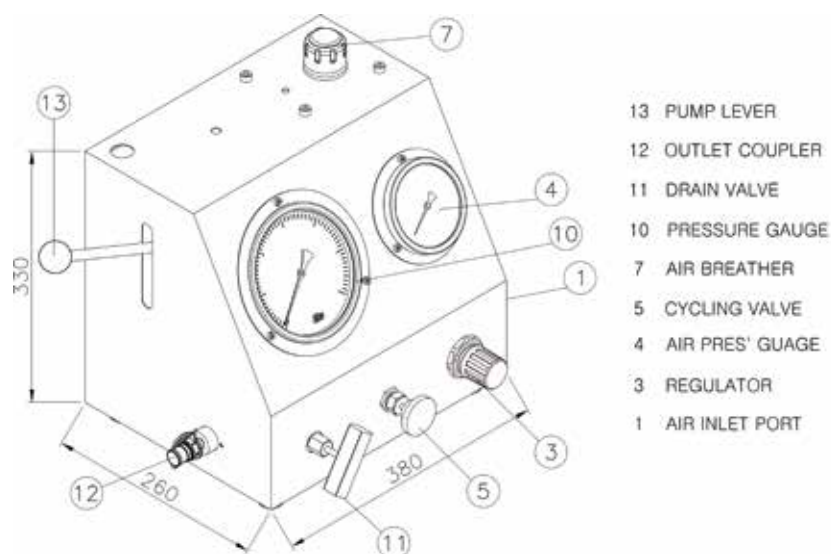
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(l /min)	Oil Tank (liter)
TDSU-0070-150	10:1	70	38	8.0
TDSU-0190-150	28:1	190	14.5	
TDSU-0380-150	55:1	380	7.4	
TDSU-0450-150	65:1	450	6.0	
TDSU-0700-150	100:1	700	4.4	
TDSU-1000-150	150:1	1000	2.8	
TDSU-1500-150	220:1	1500	2.0	
TDSU-1900-150	270:1	1900	1.5	
TDSU-2400-150	350:1	2400	1.2	
TDSU-3200-150	460:1	3200	1.0	
TDSU-3600-150	460:1	3600 (at air 8bar)	1.0	

AIR DRIVEN HYDRAULIC POWER UNIT

TSMU



TSM Series



Specifications

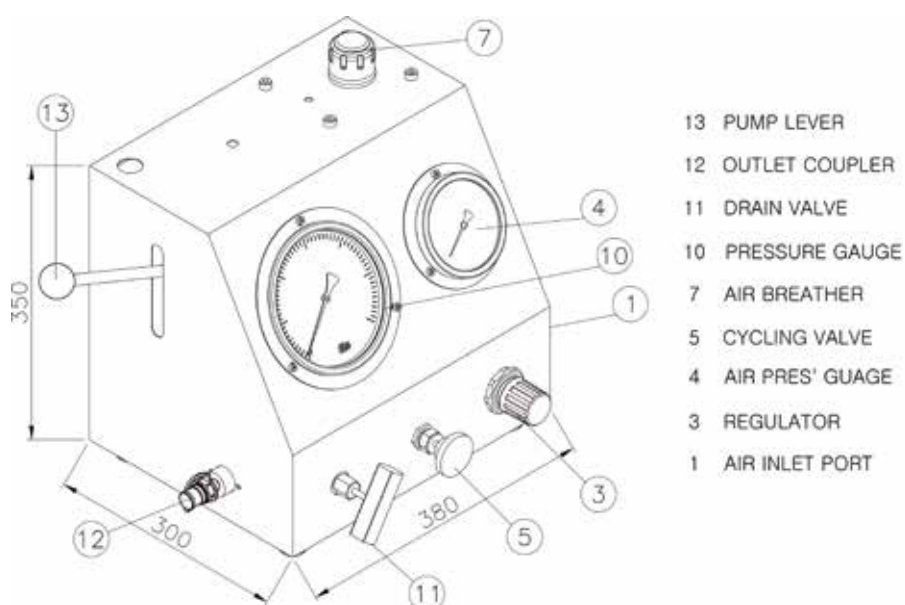
Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)
TSMU-1500-75	220:1	1540	0.36

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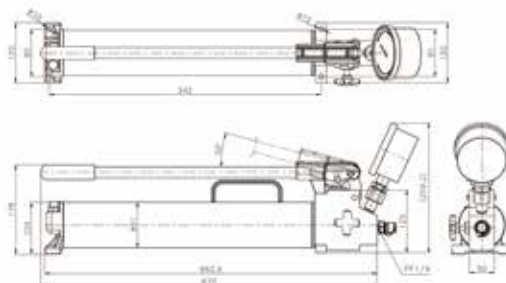
Specifications

Model	Ratio	Maximum Pressure(bar) (at air 7bar)	Maximum flow rate(ℓ /min)	Oil Tank (liter)
TSMU-1500-100	225:1	1500	0.65	5

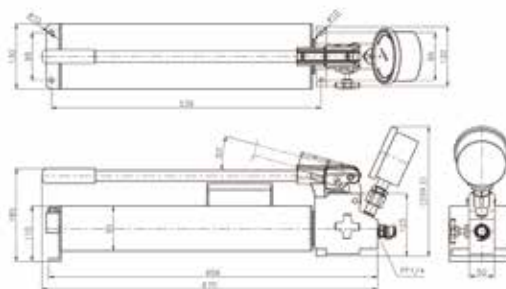
ULTRA-HIGH PRESSURE HYDRAULIC HAND PUMPS



ESP-180, 250, 280



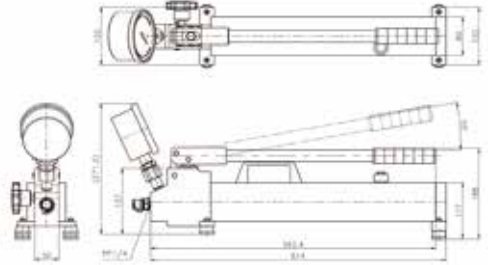
ESP-180L, 250L, 280L



Specifications

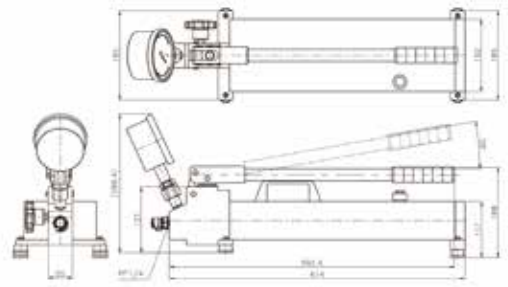
Model	Oil Tank Capacity (cc)	Maximum Pressure (bar)	Volume per stroke (cc/cycle)		Piston Dia.(mm)		Piston Stroke (mm)	Max. Hand Effort (kg)	Material	Max. Weight (kg)
			High	Low	High	Low				
ESP-180	2000	1800	0.8 (at 1800bar)	20 (at 20bar)	6	36	26	33.9	Aluminum	7.7
ESP-250	2000	2500	0.8 (at 2500bar)	20 (at 20bar)	6	36	26	42.9		7.7
ESP-280	2000	2800	0.8 (at 2800bar)	20 (at 20bar)	6	36	26	48.3		7.7
ESP-180L	4000	1800	0.8 (at 1800bar)	20 (at 20bar)	6	36	26	33.9		11.7
ESP-250L	4000	2500	0.8 (at 2500bar)	20 (at 20bar)	6	36	26	42.9		11.7
ESP-280L	4000	2800	0.8 (at 2800bar)	20 (at 20bar)	6	36	26	48.3		11.7

ULTRA-HIGH PRESSURE HYDRAULIC HAND PUMPS



Specifications

Model	Oil Tank Capacity (cc)	Working Pressure (bar)	Volume per stroke (cc/cycle)		Piston Dia.(mm)		Piston Stroke (mm)	Max. Hand Effort (kg)	Material	Weight (kg)
			High	Low	High	Low				
ESP-1800	1800	1800	0.8 (at 1800bar)	20 (at 20bar)	6	36	26	35	Aluminum	8.1
ESP-2500	1800	2500	0.8 (at 2500bar)	20 (at 20bar)	6	36	26	45	Aluminum	8.1
ESP-2800	1800	2800	0.8 (at 2800bar)	20 (at 20bar)	6	36	26	51	Aluminum	8.1

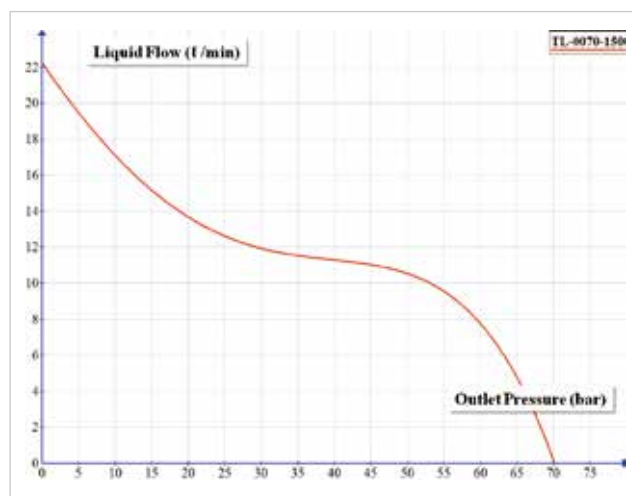


Specifications

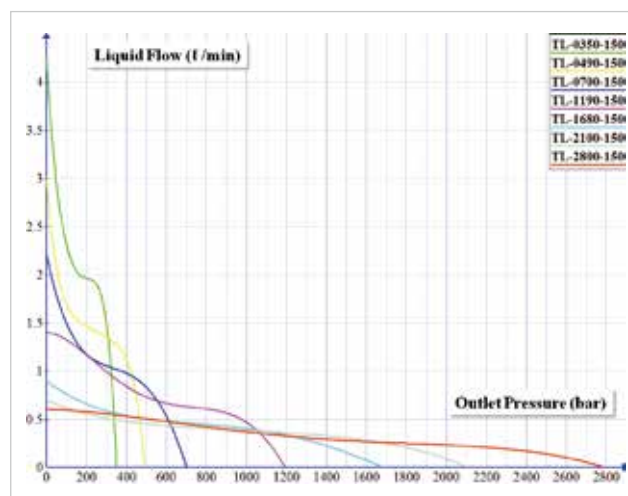
Model	Oil Tank Capacity (cc)	Working Pressure (bar)	Volume per stroke (cc/cycle)		Piston Dia.(mm)		Piston Stroke (mm)	Max. Hand Effort (kg)	Material	Weight (kg)
			High	Low	High	Low				
ESP-1800L	4000	1800	0.8 (at 1800bar)	20 (at 20bar)	6	36	26	35	Aluminum	13
ESP-2500L	4000	2500	0.8 (at 2500bar)	20 (at 20bar)	6	36	26	45	Aluminum	13
ESP-2800L	4000	2800	0.8 (at 2800bar)	20 (at 20bar)	6	36	26	51	Aluminum	13

LIQUID FLOW / OUTLET PRESSURE GRAPH

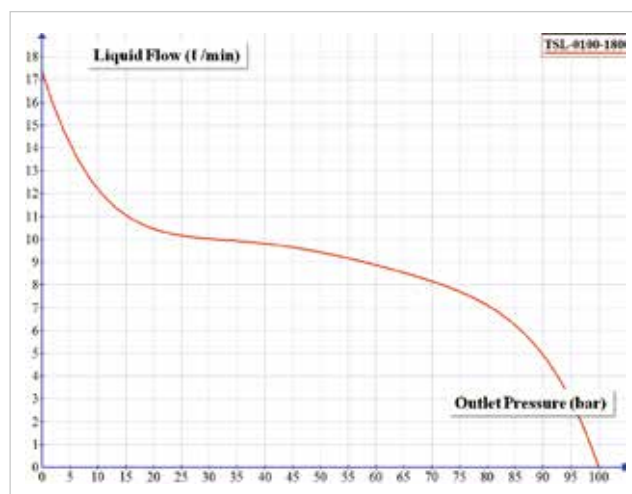
► TL / TSL / TSS Series



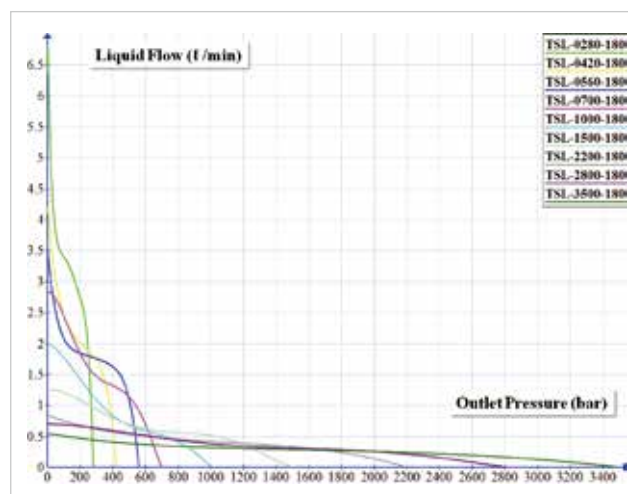
TL-150



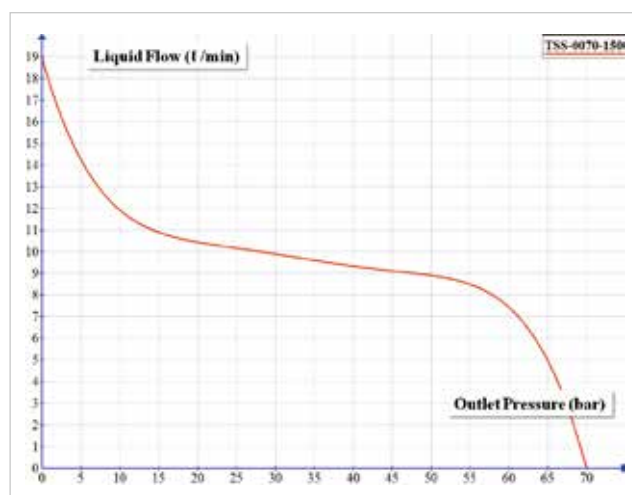
TL-150 Series



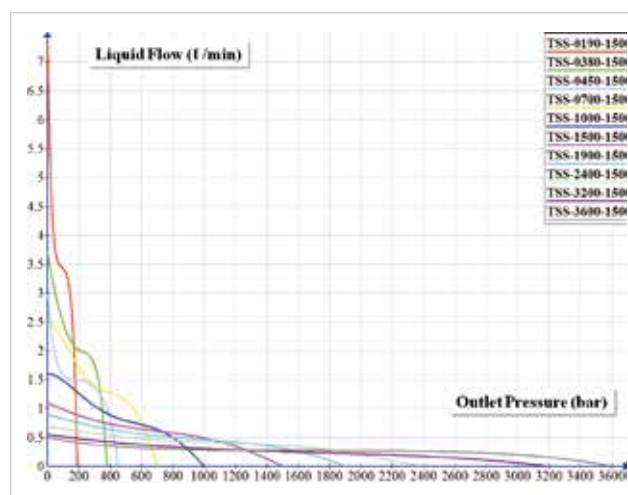
TSL-180



TSL-180 Series



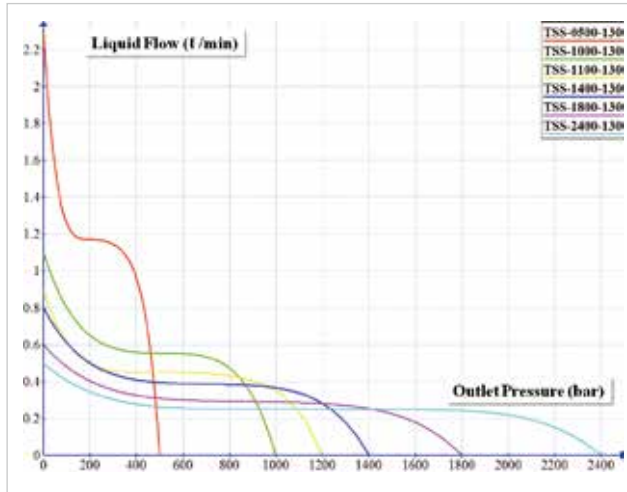
TSS-150



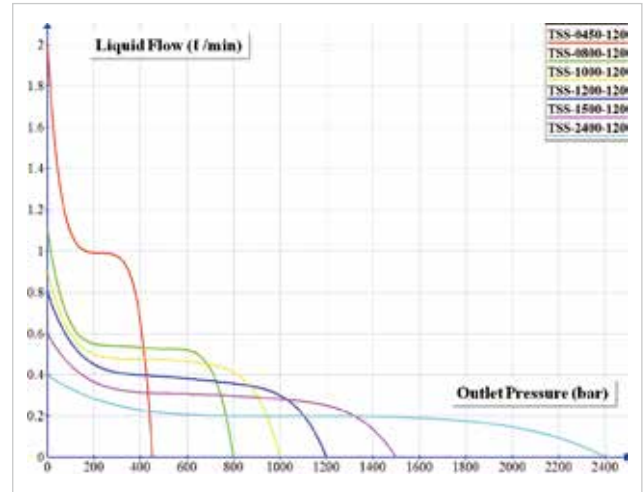
TSS-150 Series

LIQUID FLOW / OUTLET PRESSURE GRAPH

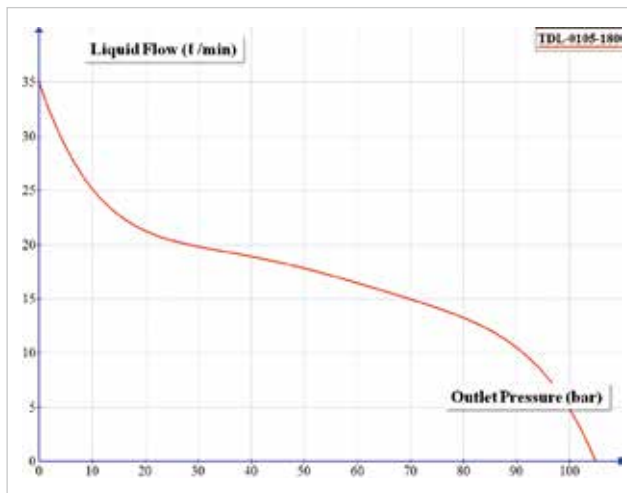
► TSS / TDL / TDS Series



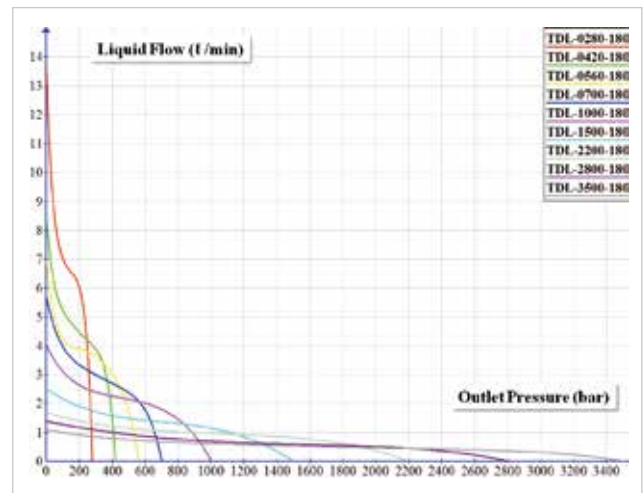
TSS-130



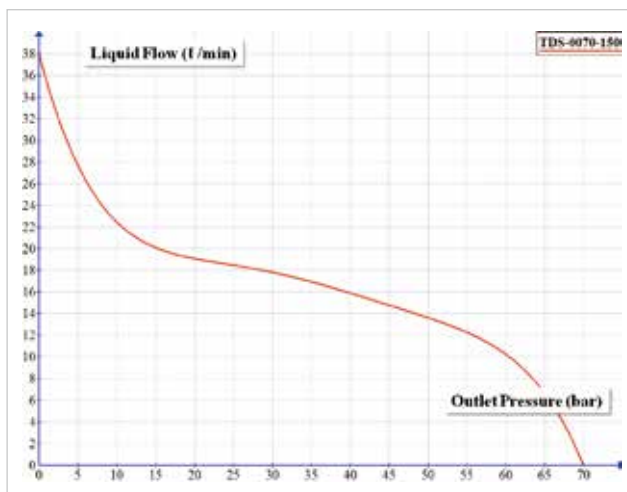
TSS-120



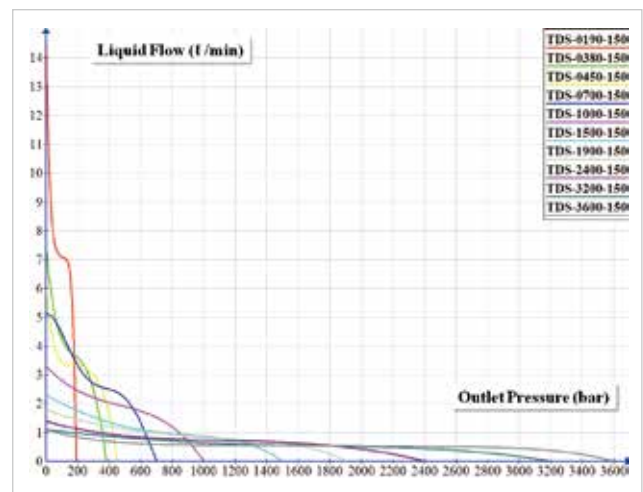
TDL-180



TDL-180 Series



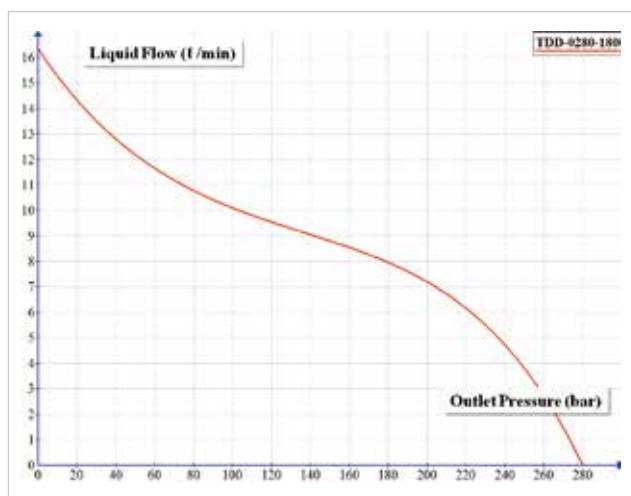
TDS-150



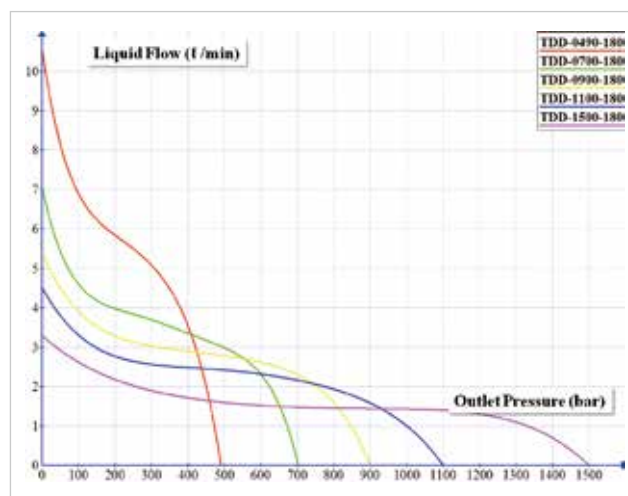
TDS-150 Series

LIQUID FLOW / OUTLET PRESSURE GRAPH

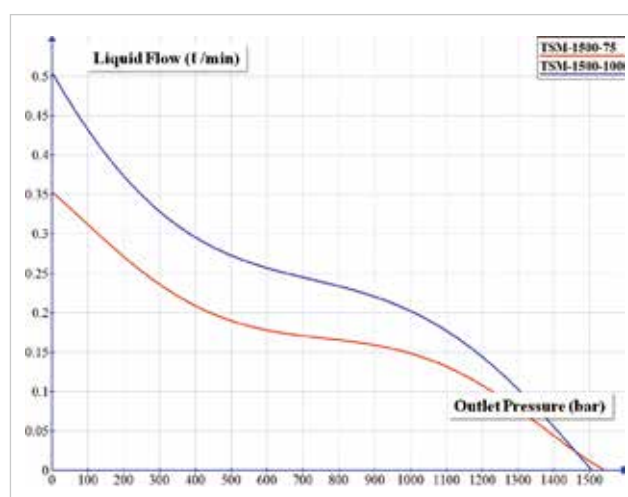
► TDD / TSM / TLF Series



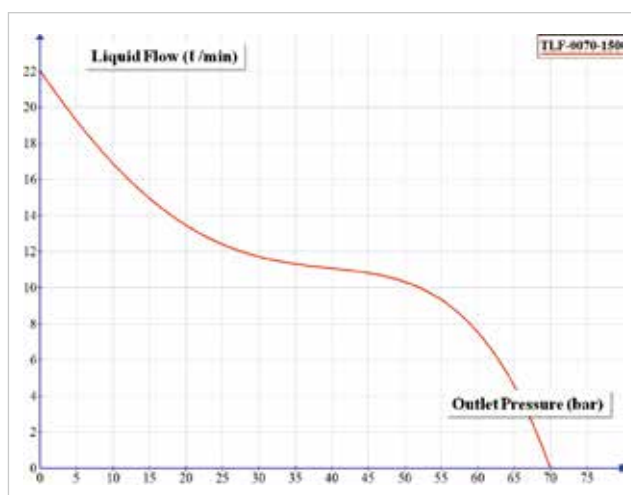
TDD-180



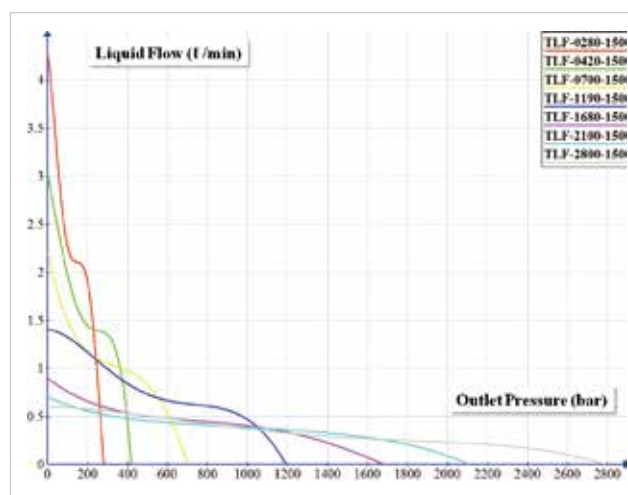
TDD-180 Series



TSM Series



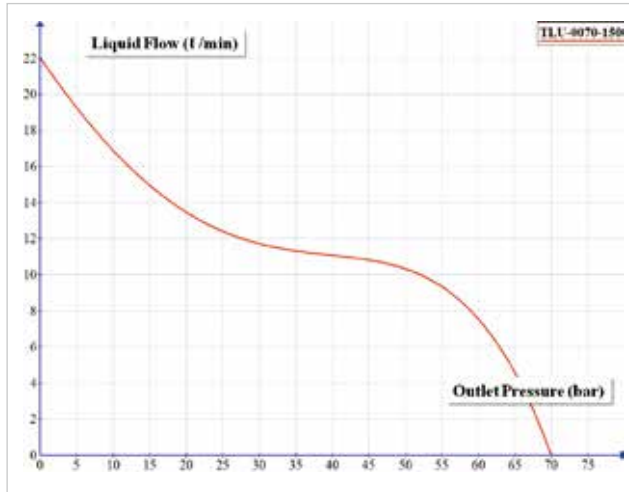
TLF-150



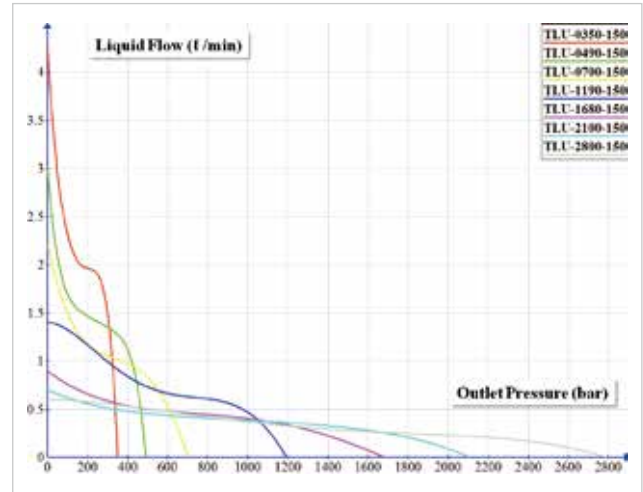
TLF-150 Series

LIQUID FLOW / OUTLET PRESSURE GRAPH

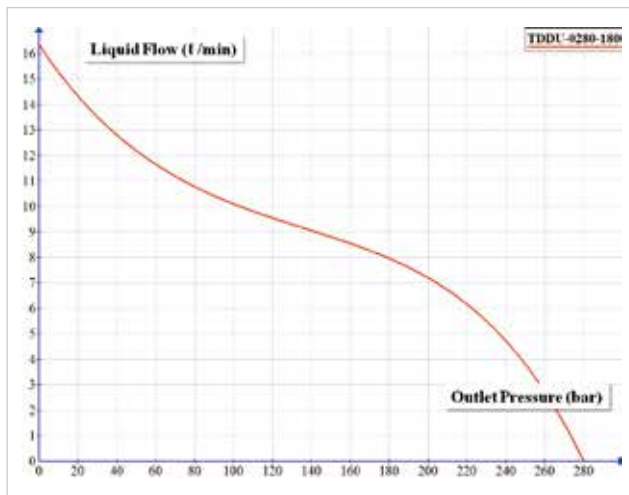
►TLU / TDDU / TLC Series



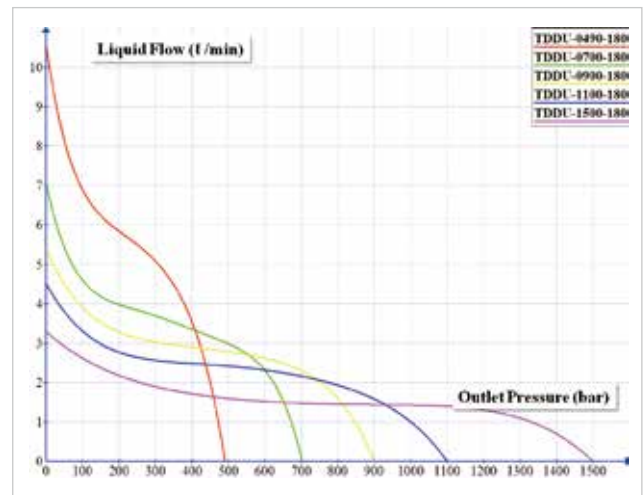
TLU-150



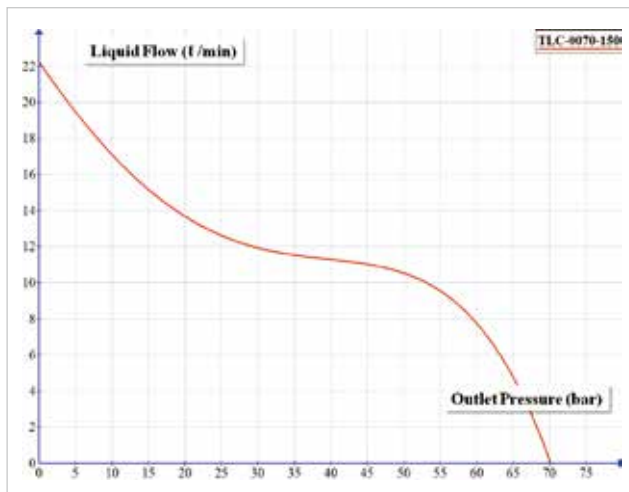
TLU-150 Series



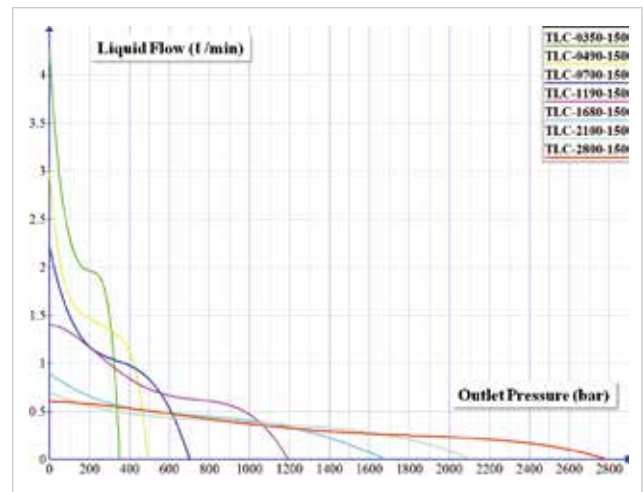
TDDU-180



TDDU-180 Series



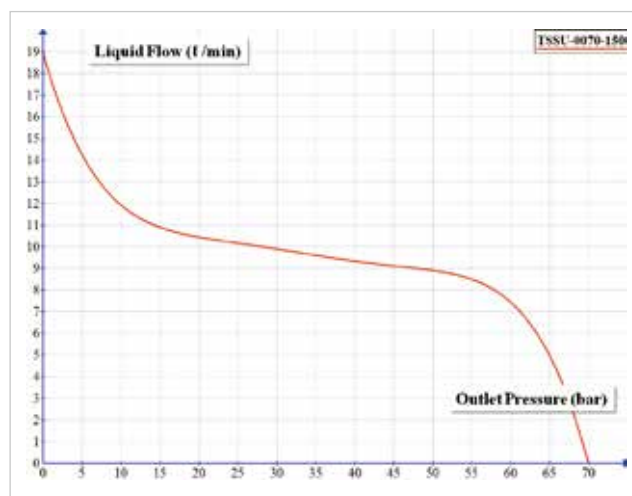
TLC-150



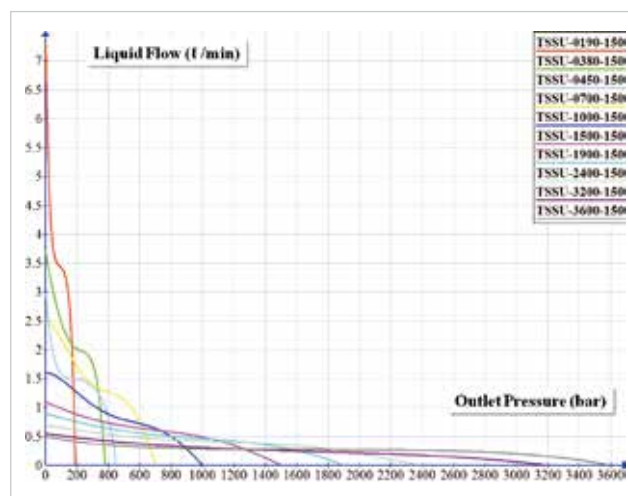
TLC-150 Series

LIQUID FLOW / OUTLET PRESSURE GRAPH

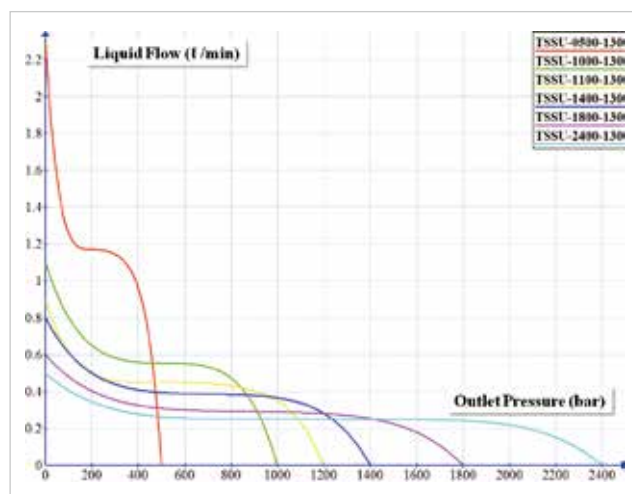
▷ TSSU / TDLU Series



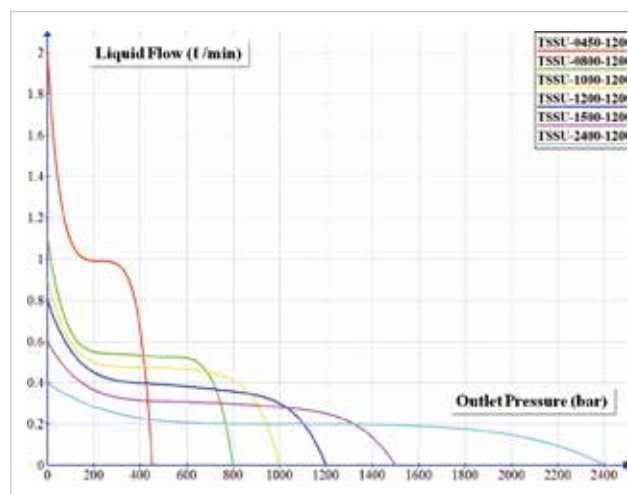
TSSU-150



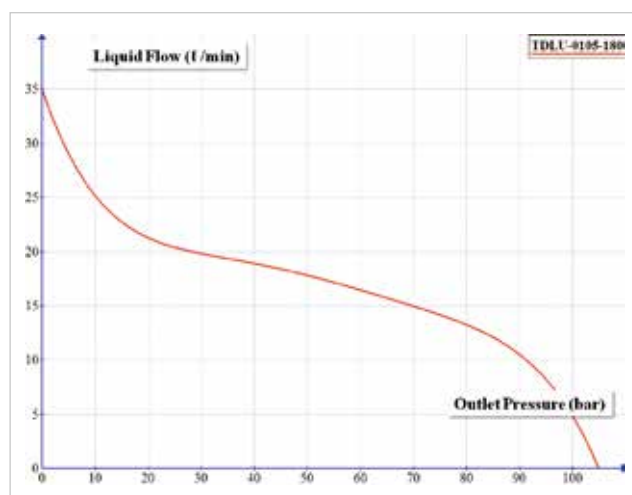
TSSU-150 Series



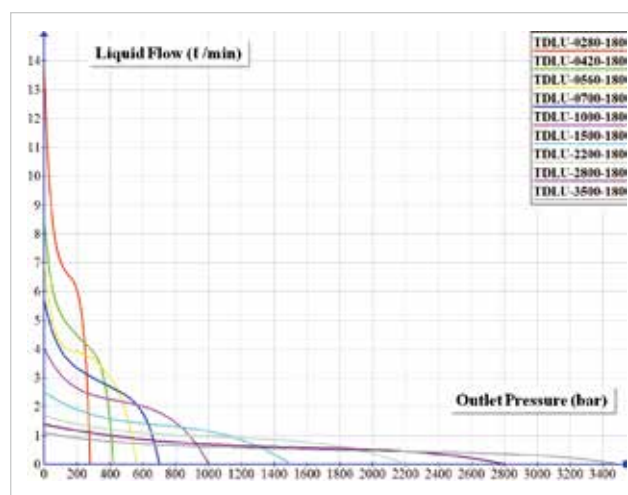
TSSU-130 Series



TSSU-120 Series



TDLU-180



TDLU-180 Series