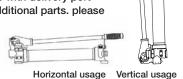
TWA type Hand Pumps

Model number Hand pump Usable oil volume (ϱ) Hydraulic circuit diagram

for single-acting jacks(low-pressure relief)

Features

- Pump body is made of a special, pressure-resistant steel.
- High and low pressure, two-stage oil delivery.
- For horizontal usage. Vertical usage with delivery port downward is possible by adding additional parts. please contact us for further information.

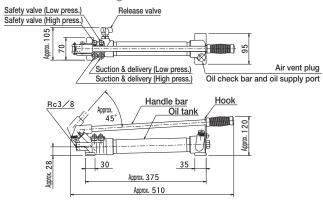


Release valve Low press High press safety valve safety valve Handle bar Oil tanl



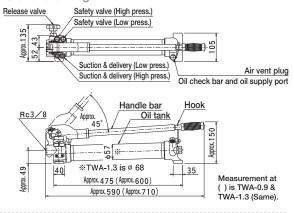
Dimensional drawing

(Low-pressure relief type)



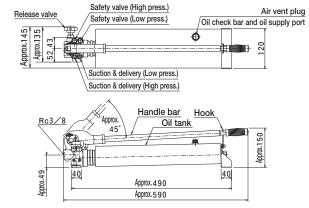


Dimensional drawing





Dimensional drawing



Specifications

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Items	Items Usable oil volume		Working pressure (MPa)		Oil delivery (mℓ/stroke)		Weight		
Model	(Q)	High	Low	High	Low	Connection port	approx. (kg)		
TWA-0.3	0.3	72	3	1	5		3.5		
TWA-0.7	0.7			2	11	NPT3/8	6.6		
TWA-0.9	0.9					or	7.8		
TWA-1.3	1.3					Rc3/8	8.5		
TWA-2	2						10.0		

TWA type Hand Pumps

for single-acting jacks(low-pressure relief)

Model number Hand pump Usable oil volume (ϱ)

Features

- Pump body is made of a special, pressure-resistant steel.
- High and low pressure, two-stage oil output.
- For horizontal usage. Vertical usage with delivery port downward is possible by adding additional parts. please contact us for further information.





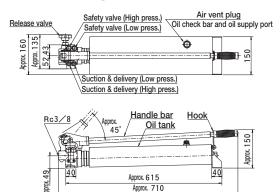
Hydraulic circuit diagram
(Low-pressure relief type)

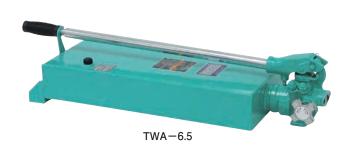
Release valve
High press safety valve
Handle bar

Oil tank

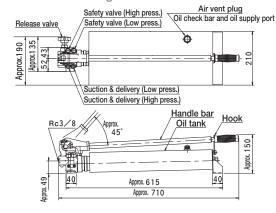
TWA-4

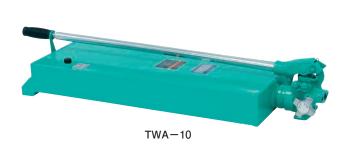
Dimensional drawing



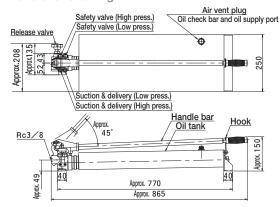


Dimensional drawing





Dimensional drawing



Specifications

Items	Usable oil volume Working pressure (MPa		ssure (MPa)	Oil delivery (ml/stroke)		0	Weight
Model	(0)	High	Low	High	Low	Connection port	approx. (kg)
TWA-4	4					NPT3/8	13.0
TWA-6.5	6	72	3	2	11	or	16.5
TWA-10	10					Rc3/8	24.0

Note) Use ISO VG10 hydraulic working oil or equivalent oil.

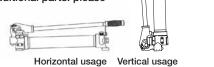
TWA type Hand Pumps

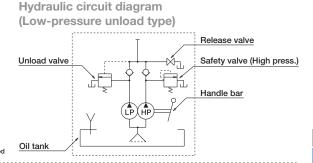
for single-acting jacks(low-pressure unload)

Model number Hand pump Usable oil volume (0)

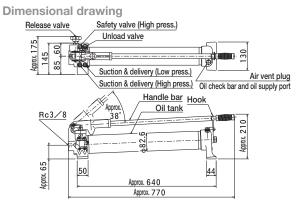
Features

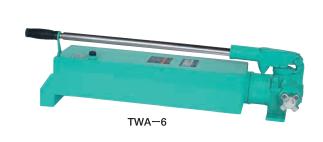
- Pump body is made of a special, pressure-resistant steel.
- High and low pressure, two-stage oil output.
- For horizontal usage. Vertical usage with delivery port downward is possible by adding additional parts. please contact us for further information.

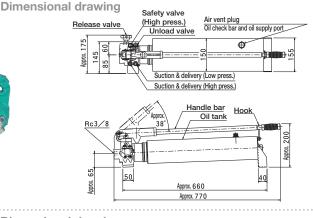














Dimensional drawing Release valve Safety valve (High press.) Unload valve Air vent plug Oil check bar and oil supply port Min. Approx. 910 Retract port

Oil tank

Drain port

820

Features

- · Low/high two-stage large output pump.
- High quantity of usable oil.
- · Suitable for large jacks.

*Not applicable for vertical usage.

Specifications

Items	Usable oil volume	Working pressure (MPa)		Oil delivery (ml/stroke)		0	Weight		
Model	(0)	High	Low	High	Low	Connection port	approx. (kg)		
TWA-2.3	2.3	72	3	2	24	Rc3/8	13.8		
TWA-6	6	72					19.5		
TWA-8	8	72	2	9	90		57.0		
TWA-8M	8	21		22			57.0		

Note) Use ISO VG10 hydraulic working oil or equivalent oil.