

# PD23

## Bench Type Deadweight Tester



### Features

- The PD23 is for medium pressure use. A preliminary pump and fine adjustment pump are incorporated to make pressure adjustment easily.
- Since there are two gauge ports, pressure measurements can be performed efficiently.
- Pressure can also be measured by installing a test gauge to one of the gauge ports instead of deadweight.
- The pressure gauge can be easily mounted and dismounted from the mounting base with the quick fastening nut.
- Level, and level surface adjuster are the standard equipment.
- JCSS Calibration Certification
- NKS Inspection Certificate and Pressure standard Inspection available.

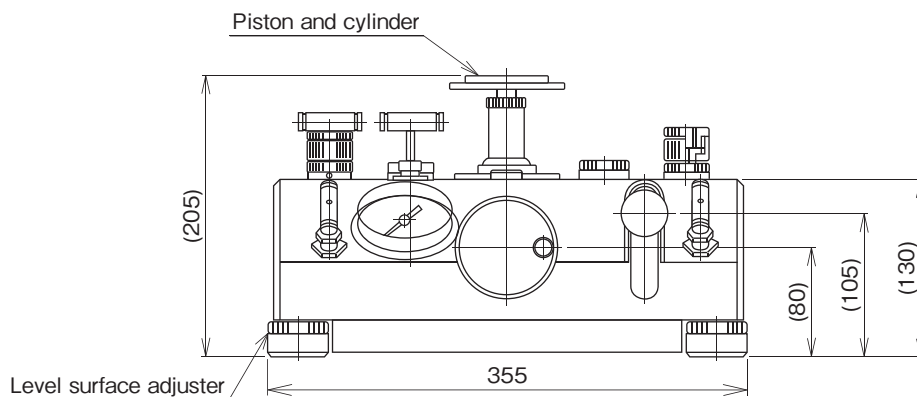
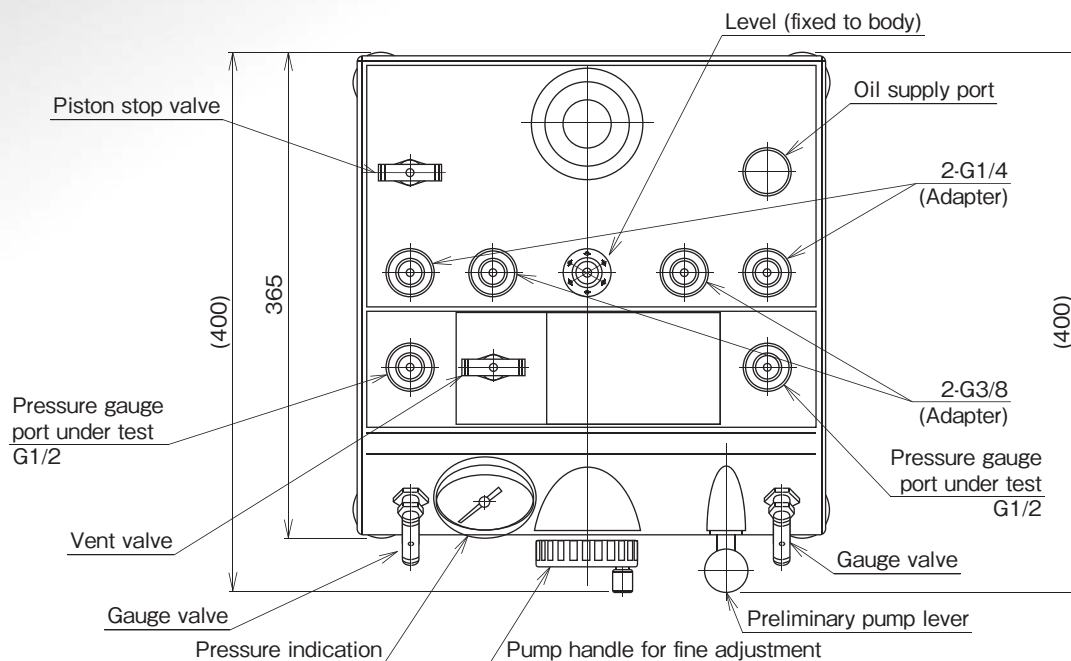
### Specification

<b>Type</b>	Bench type
<b>Operating fluid</b>	Hydraulic fluid
<b>Operation</b>	Manual
<b>Pressure range</b>	10 to 50MPa
<b>Accuracy</b>	±0.1% of reading ±0.2% of reading
	Primary pressure measurement only. Secondary pressure measurement range covers lower outside range of primary pressure measurement range (10% of maximum rated pressure). Primary pressure measurement range: Range between 10% to maximum range of rated pressure Secondary pressure measurement range: Range between minimum to 10% of rated pressure
<b>Body color</b>	Pearl light green (±0.1%O.R.) Mustard yellow (±0.2%O.R.)
<b>Body weight</b>	14kg

### Deadweight composition

Measurement range MPa			Effective sectional area cm <sup>2</sup>	Deadweight MPa											Net weight of deadweight Approx. kg
Max.	Min.	Smallest graduation		Piston		Number of weights by value								Total	
				0.1	0.2	0.05	0.1	0.2	0.3	0.5	1	2	5		
10	0.1	0.05	1/4	1		1	2	1		1	9			10.05	26
20	0.2			1		1	2	1		1	3	8		20.05	51
30	0.5	0.1	1/8		1		1	2	1	1	1	2	5	31.5	40
50					1		1	2	1	1	1	2	9	51.5	66

## Dimensions



## ACCESSORIES & OPTIONS

Model	Mounting base		Spare parts, tools, accessories								
	Connection	Connecting method	Adapter				O-ring and gasket	Piston Gasket	Wrench and other tools	Case (option)	
			G1/4	G3/8	G1/2	G3/4				Carrying case	Weight box
PD23	Adapter	Quick fastening nut	2	2	2	—	P7-10	—	—	1	10, 30MPa 2 ----- 20, 50MPa 3

# PD23

## Bench Type Deadweight Tester

### Model number configuration

Please specify the model number, each specs and the range for ordering.

Model

P
D
2
3
 — 
 M
 
1
 — 
  
 
 
 
 
 
 
X
X
X
X
X
 

Deadweight type pressure standard ① ② ③      ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Product specifications		Additional specifications (Optional)	
① Units	M	MPa			
② Accuracy	0	±0.2% O.R. (Body color: Mustard yellow)			
	1	±0.1% O.R. (Body color: Pearl light green)			
(Please specify pressure range and unit of measure along with corresponding ordering code.)	④ Pressure range (MPa)	5	10		
		6	20		
		7	30		
		8	50		
⑤ Deadweight finish	2	Ni plating (Standard)		⑥ Carrying case	⑦ Weight box
	3	Ni plating+Carrying case		0	0
	4	Ni plating+Carrying case+Weight box		1	1 to 4
	5	Ni plating+Weight box		0	1 to 4
⑥ Carrying case	0	Not required			
	1	Required			
⑦ Weight box	0	Not required			
	1	With case for 10MPa			
	2	With case for 20MPa			
	3	With case for 30MPa			
⑧ Pressure standard inspection / certification	1	Pressure standard inspection (Accuracy: ±0.2% O.R.)			
	3	JCSS certificate of calibration			
	4	Inspection certificate, Traceability certificate (NCSS)			
⑨ Other additional spec.	0	Not required			
	1	Required (Documents available upon request) Other units than "SI" (Export purpose only)			
⑮ Documents	0	Not required			
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Attending inspection			

\* Specify code "X" to refer N/A

### OPERATING INSTRUCTIONS

- Avoid installation in places exposed to places that excessive vibration, dirt, dust, corrosive atmosphere, and direct sunlight are present.
- Ensure to install the deadweight tester horizontally. If not installed horizontally, the test result may not be accurate.
- Do not try to increase or decrease the pressure suddenly. (Ensure to open and close the valves slowly.)
- Applying a pressure over the maximum allowable pressure on PD13 is not only dangerous but possibly damage the tester.
- The deadweights are precisely manufactured. Do not fabricate with sandpaper or drop them.
- Use a tank siphon to calibrate "Use no oil" pressure gauges and be sure that oil does not ingress into pressure gauge under test.
- Use clean hydraulic oil. Refer to the following for your reference to select appropriate operating oil according to ranges.

**Max. pressure      Operating oil**  
 10MPa: Machine oil (VG22)  
 20 to 50MPa: Machine oil (VG46)

## Documents

Specify "Document name" when required

Document name	Applicable document	Explanation
Additionally available traceability certificate	Certificate of calibration and inspection for pressure standard used for inspection (Copy)	Copy of certificate that pressure gauge or pressure standard used for the inspection is traceable to National Secondary Standard owned by qualified company.
	JCSS certificate of calibration (Copy)	Copy of certificate of working standard that the working standard is traceable to National Secondary Standard owned by qualified company.
	jcss test report (Copy)	Copy of certificate of National Secondary Standard that the National Secondary Standard owned by qualified company is traceable to National Standard.

## Traceability Chart of Measurement Standard

