

# PD23 Bench type Dead-weight testers

## OUTLINE

The PD23 Dead-Weight Testers are standard pressure gauges for inspection and calibration of other pressure gauges. They can be used as on-site bench type pressure standards in the high pressure range (10 to 50MPa).

## FEATURES

- The PD23 are for medium pressure use. A preliminary pump and fine adjustment pump are incorporated so you can make pressure adjustments easily.
- Since there are two gauge ports, pressure measurements can be performed efficiently.
- Pressure can also be measured by installing a standard pressure gauge to one of the gauge ports instead of a dead-weight.
- The pressure gauge can be easily mounted to and dismantled from the mounting base with the quick fastening joint.
- Level, and level adjustment bolts are standard equipment.
- Jcss Calibration Certification
- NKS Inspection Certificate and Standard Inspection

## SPECIFICATION

**Type:**  
Bench type

**Fluid:**  
Hydraulic fluid

**Operation:**  
Manual

**Pressure range:**  
10→50MPa

**Accuracy:**  
±0.1% of reading  
±0.2% of reading

**Color of finish:**  
Pearl light green (0.1%O.R.)  
Mustard yellow (0.2%O.R.)

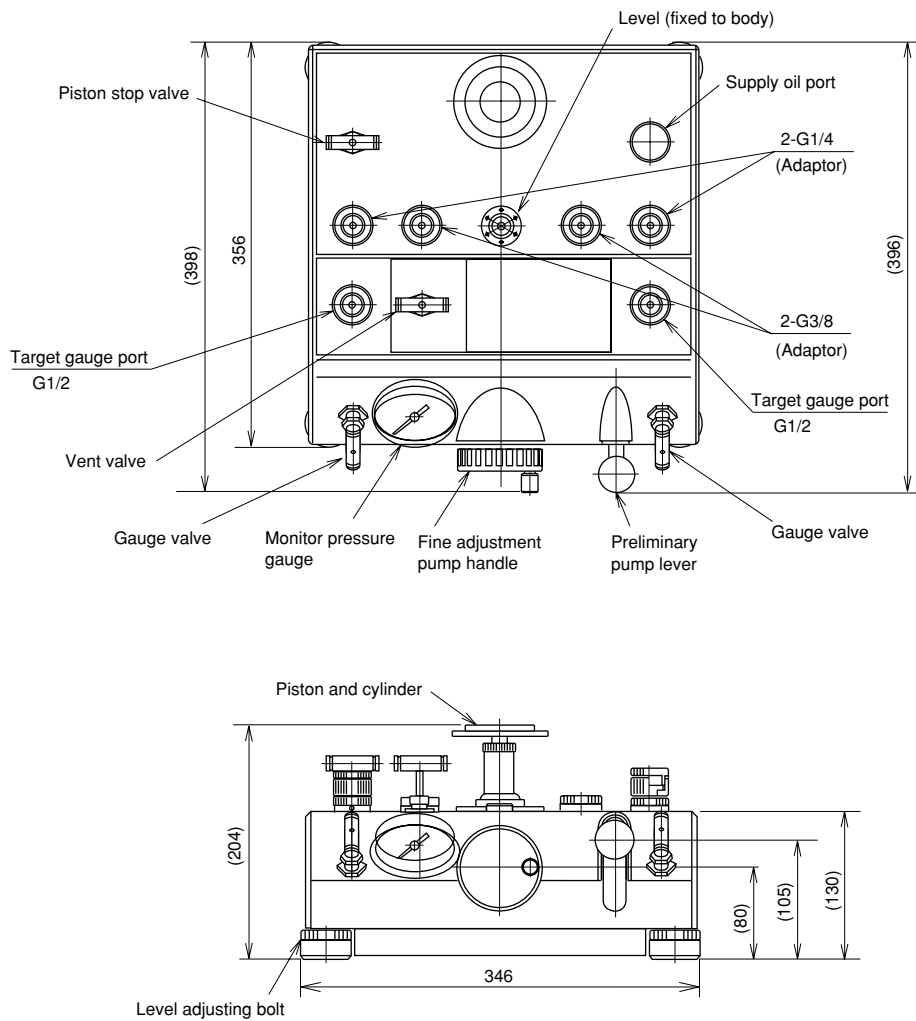
**Body weight:**  
14 kg

### Dead-weight composition

Measurement range MPa			Effective sectional area cm <sup>2</sup>	Dead-weight correspondence MPa										Net weight of entire dead-weight Approx. kg	
Max.	Min.	Smallest graduation		Piston		Dead-weight							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
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

# PD23 bench type dead-weight testers

## DIMENSIONS



## ACCESSORIES & OPTIONS

Model	Gauge mount		Spare parts, tools, accessories									Case (option)	
	Adjusting bolt	Connection system	Intermediate joint				O-ring and packing	Piston Packing	Wrenches and other tools	Pointer remover	Pointer hammer	Case (option)	
			G1/4	G3/8	G1/2	G3/4						Body	Dead-weight
PD23	Intermediate joint use	Quick fastening joint	2	2	2	—	P7-10	—	—	1	1	1	10, 30MPa 2 ----- 20, 50MPa 3

## OPERATING INSTRUCTIONS

- Avoid installation in places exposed to such conditions as excessive vibration, dirt and dust, corrosive atmosphere, and direct sunlight.
- Always install the dead-weight meter horizontally. If not installed horizontally, the correct pressure will not be indicated.
- Do not increase or decrease the pressure suddenly because it is dangerous. (Open and close the valves slowly.)
- Applying a pressure over the maximum pressure indicated on the PD23 is not only dangerous, but may also damage the tester.
- The dead-weights are precision manufactured. Do not file them with sandpaper and do not drop them.
- Use a tank siphon to calibrate "No oil" pressure gauges and be sure that oil does not enter the pressure gauge.
- Use clean hydraulic oil. Refer to the following table and select the oil according to the maximum pressure of the equipment used.

### Max. pressure      Oil

10MPa :      Machine oil (VG22)

20~50MPa :      Machine oil (VG46)

## Model number configuration

For ordering, please specify the model number, each specs and range.

<b>P D 2 3</b>	—			<b>M</b>	<b>1</b>	—					<b>2</b>	<b> </b>	<b> </b>	<b> </b>	<b> </b>	<b>×</b>	<b>×</b>	<b>×</b>	<b>×</b>	<b>×</b>	<b> </b>	
Dead-weight type pressure standard	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮							
Model	Selective spec.						Additional spec. (Option)															
① Units	M	MPa																				
② Accuracy (%O.R.)	0	0.2																				
	1	0.1																				
(When ordering, please specify the range and units separately.)	④ Pressure range (MPa)	5	10																			
		6	20																			
		7	30																			
		8	50																			
⑤ Dead-weight finish	2	Ni plating (Standard)																				
⑥ Case	0	Nil																				
	1	With case																				
⑦ Dead-weight case	0	Nil																				
	1	With case for 10MPa																				
	2	With case for 20MPa																				
	3	With case for 30MPa																				
⑧ Standard inspection/certification	1	Standard inspection (accuracy: 0.2%)																				
	3	Jcss calibration certificate																				
	4	Inspection certificate																				
⑨ Other additional specifications	0	Nil																				
	1	Required (Please specify the desired documents separately.) Units specification (bar)																				
⑮ Documents	0	Nil																				
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, attended inspection																				

Specify "X" if there is no specification item.



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