

Deadweight tester // Hydraulic // 0.25...1400 bar



Highlights

- Highest precision with an accuracy of 0.015 %
- Including adaptation to the local normal case acceleration
- Interchangeable piston: Extended calibration range with only one mass set

Technical data	
Type	ODWT15
Pressure ranges	0.25...1,400 bar depending on piston and mass set
Accuracy	0.015 % of reading
Pressure units	Bar
Pressure medium	Oil DWT Miglyol 812N Sasol
Temperature range	18...22 °C
Pressure connection	G $\frac{3}{8}$ LH male with adapters G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$ female
Version	
Dimension	
→ without weights	Approx. 340 x 225 x 220 mm (H x B x T)
→ with weights	Maximum height 450 mm
Weight	Approx. 12.6 kg (without masses)
+ Mass set	up to 56 kg

Options	
For type	On request
ODWT15	Other pressure units: PSI, kPa, MPa und kg/cm ²

Materials

Materials	
Housing	Stainless steel for all welded parts
Piston cylinder assembly	Tungsten carbide
Mass sets	non magnetic stainless steel plates
O-ring seals	NBR

Piston numbers and measuring ranges

Piston number and measuring ranges					Equivalent of mass [bar]								Total weight mass set [kg]		
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">1</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">2</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">3</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">4</div> <div style="border: 1px solid black; padding: 5px;">5</div> </div>					0.25	0.025	0.05	0.25	0.5	2.5	5				
					0.5	0.05	0.1	0.5	1	5	10				
					1	0.1	0.2	1	2	10	20				
					5	0.25	0.5	2.5	5	25	50				
					10	0.5	1	5	10	50	100				
Pressure range [bar]					Carrier	Number of masses							[kg]		
0.25...25	0.5...50	1...100	5...250	10...500	1	1	4	1	4	1	4	1	4	20	
0.25...30	0.5...60	1...120	5...300	10...600	1	1	4	1	4	1	5	1	5	24	
0.25...35	0.5...70	1...140	5...350	10...700	1	1	4	1	4	1	6	1	6	28	
0.25...40	0.5...80	1...160	5...400	10...800	1	1	4	1	4	1	7	1	7	32	
0.25...45	0.5...90	1...180	5...450	10...900	1	1	4	1	4	1	8	1	8	36	
0.25...50	0.5...100	1...200	5...500	10...1,000	1	1	4	1	4	1	9	1	9	40	
0.25...55	0.5...110	1...220	5...550	10...1,100	1	1	4	1	4	1	10	1	10	44	
0.25...60	0.5...120	1...240	5...600	10...1,200	1	1	4	1	4	1	11	1	11	48	
0.25...65	0.5...130	1...260	5...650	10...1,300	1	1	4	1	4	1	12	1	12	52	
0.25...70	0.5...140	1...280	5...700	10...1,400	1	1	4	1	4	1	13	1	13	56	

Example: Select piston number 3 for a pressure range of 1...180 bar.

This piston system contains 1 carrier as well as 19 weights in total (1+1/4/1/4/1/8) with a total weight of 36 kg.

You can read how much bar / psi each weight generates under "Equivalent of mass".

Piston number and measuring ranges					Equivalent of mass [psi]								Total weight mass set [lbs.]		
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">1</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">2</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">3</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">4</div> <div style="border: 1px solid black; padding: 5px;">5</div> </div>					5	0.5	1	5	10	50	100				
					10	1	2	10	20	100	200				
					20	2	4	20	40	200	400				
					100	5	10	50	100	500	1000				
					200	10	20	100	200	1000	2000				
Pressure range [psi]					Carrier	Number of masses							[lbs.]		
5...400	10...800	20...1600	100...4000	200...8000	1	1	4	1	4	1	3	1	3	49	
5...500	10...1000	20...2000	100...5000	200...10000	1	1	4	1	4	1	4	1	4	62	
5...600	10...1200	20...2400	100...6000	200...12000	1	1	4	1	4	1	5	1	5	73	
5...700	10...1400	20...2800	100...7000	200...14000	1	1	4	1	4	1	6	1	6	86	
5...800	10...1600	20...3200	100...8000	200...16000	1	1	4	1	4	1	7	1	7	97	
5...900	10...1800	20...3600	100...9000	200...18000	1	1	4	1	4	1	8	1	8	110	
5...1000	10...2000	20...4000	100...10000	200...20000	1	1	4	1	4	1	9	1	9	121	

Article numbers

Order code				
Version				
Bar			ODWT15B	
PSI			ODWT15P	
Piston Set				
Set 1				1
Set 2				2
Set 3				3
Set 4				4
Set 5				5
Total weight mass set		kg	PSI	
Carrier + Weights		20		20
			22	22
		24		24
		28	28	28
		32		32
			33	33
		36		36
			39	39
		40		40
		44	44	44
		48		48
			50	50
		52		52
	55	55		
	56		56	
Example order number				ODWT15B 1 20

Order code	
Accessories	
Second piston set	ODWT2PISTON
Sealings (Spare part)	ODWTSEAL
Small mass set	ODWTSMS
Rekalibrierung	
ODWT15 with one piston	ODWTREKAL1
Extra piston	ODWTREKALZUS