

## Servo Hydraulic Compression Testing Machine

### YAW Series



YAW 4206T compression testing machine

### Configuration

SANS' popular line of hydraulic testing machines is complemented by a series of compression only test frames. These frames have the same superior specifications as the tension and compression frames, but test in compression only. YAW series features servo hydraulic loading and motor driving system and a rugged two or four column construction for exceptional load frame rigidity. It is originally designed to

carry out compression test and has only one testing space, the maximum value of testing space is invariable, but an adjustable upper crosshead quickly accommodates specimens of varying lengths. The machine can perform bend test (need corresponding grips) too and has an operating range from 300kN to 3000kN and maintains an accuracy of  $\pm 0.5\%$  of the displayed load from 1% to 100% of capacity.

## Functions & Applications

YAW series' systems are guaranteed to meet ISO 15579-2000, ISO679, ISO 7438-1985 and other international and national specifications. With advanced, precise, full digital and graphic displaying instruments, it can be used to determine compression-resistance strength of timbering such as bricks, stones,

With powerful testing software PowerTest, YAW series' systems can acquire, dispose automatically testing data, display real-timely stress-strain

With knight after service of experienced experts and assistant controlling of powerful professional testing software PowerTest, the machine can be widely used in ultimate R&D department,

concretes, cements and so on. When equipped with corresponding grips and measuring devices, it can perform break-resistance test, split test of concretes, as well can be used to carry out compression and punch break test of metals.

curve, load-deformation curve, load-time curve and other related curves, at the same time, can save, output, print test report and data with customized format.

Universities and Academies, Quality control and Inspection department, calibration centers/ laboratories and concerned industries etc.

## Key Features

YAW series testing machine features as follow:

1. Newly structure, versatile functions, accurate data disposal, easy operation and convenient maintenance;
2. Speedy-response and high-accuracy

- imported servo valve;
3. Set discretionarily loading rate according to testing requirements within range of capacity;
4. Load sensor adopted in measuring system to ensure reliability and high accuracy of test results;

5. Use of imported high pressure oil pump with low noise to result in quiet working place, and wind-cooling system used in hydraulic system to be suitable for long-time and continuous

work;

6. Non-step within the whole capacity which is superior to load system with steps.

## Control System

YAW series is supplied with closed-loop servo control capability conducted by DCS-300. This closed-loop control system constantly monitors the test in progress and regulates the testing rate to maintain preset conditions .This enables you to conduct tests automatically and ensures consistent testing control free from operator variability.



Fig.49:DCS-200 controller

## Accessories

YAW series testing machine can be equipped with shield which can protect operators from injury caused by flying shatters of broken specimens. The shield is made of transparent bulletproof glass which makes it possible for operators to observe testing process.

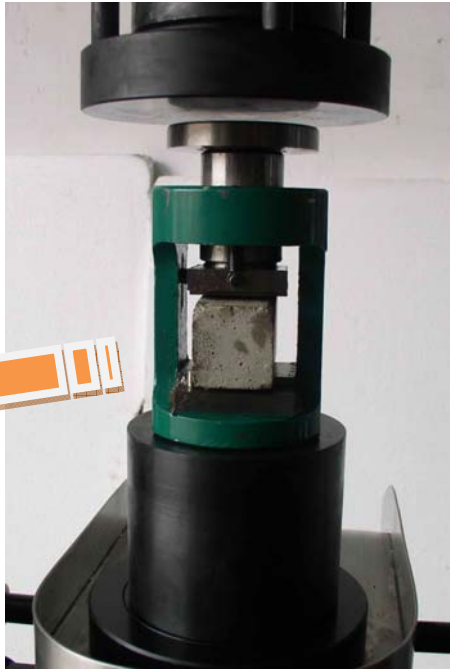
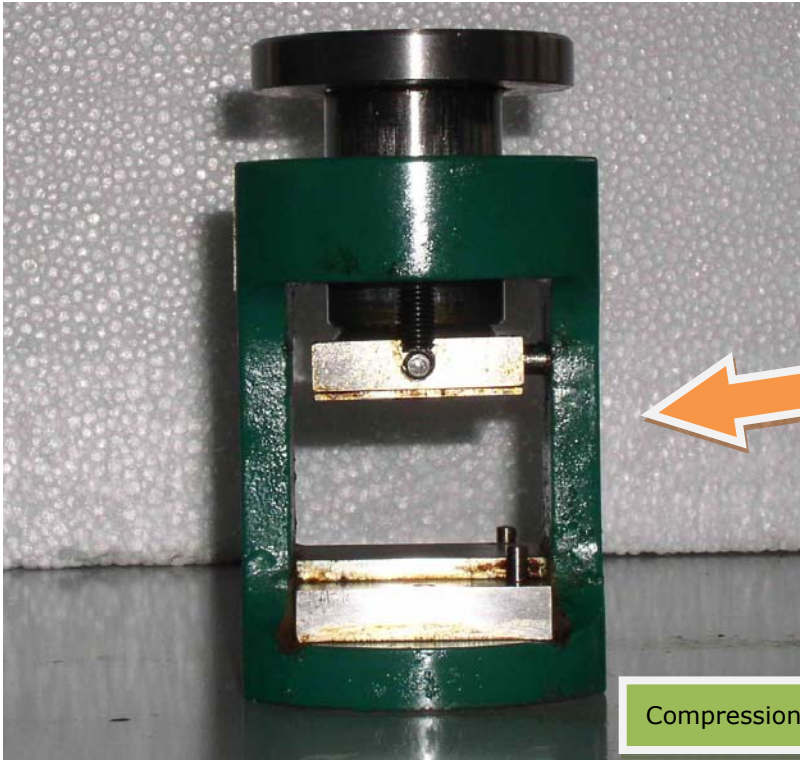
YAW series testing machine is equipped with tundish which is located on testing station and surrounds lower compression plate. The tundish is used to guide and collect specimens' shatters to ash-bin.

YAW series testing machine can be equipped with high-accuracy and super-stability compression extensometer which is used to determine elasticity module according to different test specifications.

Various grips/fixtures which are consistent with corresponding test are available.



Fixtures for break-resistant test of cement



Compression grips for cement with tundish



Fixtures for break-resistant test of bricks



Fixtures for split test of cement



300kN-600k

YAW4305 (300kN) / YAW4605 (600kN)



YAW4306 (3000kN)



1000kN

YAW4106D (1000kN) with top-mounted oil cylinder

## Technical Specifications

Series	YAW						
Models	4305	4605	4106	4206	4306	4106D	4206T
Load Capacity(kN)	300	600	1000	2000	3000	1000	2000
Force Range	2%----100%						
Load Resolution	1/300,000						
Load Measurement Accuracy	≤±1% of indicated value						
Accuracy of Loading Velocity	≤±1% of indicated value						
Stroke of Piston(mm)	135	150	150	150	200	350	150
Piston Speed (mm/min)	0-250	0-145	0-85	0-85	0-55	0-150	0-85
Number of Column	2	2	2	2	4	4	2
Clearance between Columns(mm)	280	325	520	520	440×440	1110×510	580
Maximum Compression Space (mm)	260	190-330	320	320	405	400	500
Diameter of Compression Platens(mm)	Φ160	Φ234	Φ300	Φ300/ Φ400	Φ365	Φ100	Φ300
Dimension of Hydraulic Power Station(L×W×H) (mm)	Contained in Load Frame's	996×540×860	1090×580×870			1224×950×538	1090×580×870
Dimension of Load Frame(L×W×H) (mm)	1000×490×1640	650×500×1620	820×460×1480		720×720×1785	2485×1400×800	1310×720×2200
Total Power(KW)	2.5(280 V)/+2(220 V)		4	4	4	4	4
Weight(kg)	1000	1000	2000		3000	----	----