

EQUIPMENT FOR WELL TESTING APPLICATIONS**EQUIPMENT LIST****Flow Head**

Light Duty Well Testing Flow Head 3" bore, 10K WP, DD, P-U, H₂S Service

Max load rating: 400000 lbs

2 x ball Kelly valves

1 x 2 1/16", 10K manual gate valve on kill line c/w 2" WECO FIG. 1502 F

1 x 3 1/16", 10K actuated gate valve on flow line c/w 3" WECO FIG.

All vertical sub connections are 4 1/2" HASL, Lift sub connections are 5 3/4" OTIS and 65x70 GOST Type

Applicable standard: API 6A, NACE MR01-75

**Data Header**

3" 10K Data Header c/w 8 ports 1/2" NPT, H₂S Service

Inlet 3" WECO FIG. 1502 F

Outlet 3" WECO FIG. 1502 M

c/w set of pressure and temperature gages, needle valves.

Applicable Standard: API 6A, NACE MR01-75

**Choke Manifold**

Diamond Choke Manifold 3 1/16", 10K, DD, PSL2, P-U, H₂S Service

4 x 3 1/16", 10K gate valves manifold

Inlet 3" WECO FIG 1502 F

Outlet 3" WECO FIG 1502 M

Adjustable and positive chokes

c/w full set of flow beans and spares for choke changes, ports equipped with needle valves for sampling and measurements. Applicable standard: API 6A, NACE MR01-75

**Emergency Shutdown Valve**

3 1/16", 10K ESD valve and control panel rated for 6000 psi Hi and Lo pilot valves

4 x remote ESD buttons in steel body

Flanged connections 3 1/16" c/w subs: flange 3 1/16" for WECO 3" FIG 1502 MxF

c/w set of control hoses and accessories. Applicable standard: API 6A and NACE MR01-75



Well Service Hose

3" ID, 10K, 40 ft Thermoflex well service hose, H₂S Service
Test pressure 15000 psi
Stainless steel lined, suitable for gas applications
Connections 3" WECO FIG 1502 Mx F

Applicable standard: API Spec Q1, API Spec 6A, API Spec 16A, NACE MR0175



High Pressure Pipe Work, H₂S Service

3" FIG 1502 piping WP 10000 psi
3", 10K, Elbows WECO FIG 1502
X-overs and pup joints
Complete with safety tiedown clamps.
Applicable standard: API Spec 6A, NACE MR0175



Low Pressure Pipe Work, H₂S Service

3", WECO FIG 602 piping WP 2500 psi
3", WECO FIG 602 elbows WP 2500 psi
3", WECO FIG 602 Tees WP 2500 psi
X-overs and pup joints

Applicable standard: API Spec 6A, NACE MR0175



Test Phase Separator, H₂S Service

Three Phase Test Separator, 42" x 10', 1440 psi, H₂S Service;
Gas Flow Rate 44.8 MMCFD (1.27 million m³/day);
Oil Flow Rate 8 870 BD (1410 m³/day);
Water Flow Rate 2 060 BD (328 m³/day);
C/w flowmeters, pressure switches, transmitters, gages, isolation valves and associated equipment.

Applicable standard: ASME rules Section VIII Division 1, Italian ISPESL, NACE MR0175.



Pneumatic Chemical Injection Pump

Texsteam 5005 gas/air driven chemical injection pump
Max. discharge pressure 10000 psi
Max. volume 4,38 GPH (intermittent), 3,54 GPH (continuous)

C/w hoses and accessories



Transfer Pump

Screw type positive displacement pump

Product: oil and high viscous liquids.

Max. discharge pressure 6 Bars

Max. volume 15 cu.m./hour



Pressure Testing Services

Mobile pump unit REASATO

Working pressure up to 1230 bar/17600 psi

Dual action pump

Max flow 9,5 l/min

Chart recorder

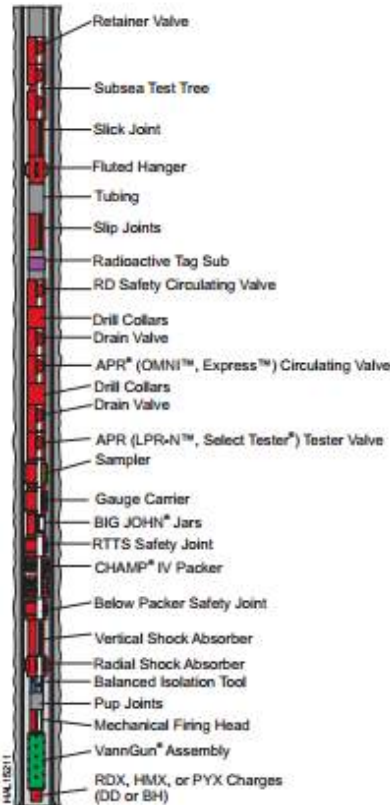


Wellsite Laboratory and Sampling Equipment

ISO container based lab with complete set equipment for express analysis of fluid samples, including:

- range of hydrometers with sample cylinders;
- centrifuges;
- PH analysis kit;
- gas detectors RAE Systems c/w indicator pipes;
- Portable gas analyzers for H₂S, CH₄ and other;
- 7 L and 20 L gas sampling containers (WP 200 bar)
- Refractometer;
- Portable VHF explosion proof;
- vacuum pump, etc.

The Set of Downhole Equipment



String Example

The set of downhole equipment 3.5" for testing in cased bores of smaller diameter including:

- Retractable packer Team Oil Tools 7" HD T613 – 2 ea.;
- Pressure Gauge carrier c/w 2 electric pressure and temperature transducers PPS25 Silicon Sapphire Memory Gauge;
- Temperature carrier c/w 4 mercurial temperature gauges;
- Circulating Valve 3/75" OD, 2-3/8", 8RD BxP – 2 ea.;
- Telescopic Joint Team Oil Tools 2-3/8" EUE 8rd Px8 – 2 ea.

All equipment is full bore and fit for H₂S service



Tubing

Tubing 73.00 mm x 5.51 mm, steel J55 – 174 ea. (total length: 1590 m)

Complete with the set of subs: 2-7/8" EUE x 2-3/8" EUE, 2 7/8" EUE x 3 1/2" IF, 2 7/8" VAGT x 3 1/2" IF and other.



Auxiliaries

- 3 1/16" 10K Gate Valves
- 3 1/8" 5K Gate Valves
- 4" Flame arrestors
- 2" and 3" Check valves
- 3" WECO Wing Union Assy FIG 1502
- 2" WECO Wing Union Assy FIG 602
- 3" WECO Wing Union Assy FIG 602
- 3 1/8" 5K & 3 1/16", 10K Positive chokes c/w set of beans and accessories
- 3" 10K Adjustable chokes
- 2" 10K Full-bore Valves with WECO connection
- 1/4" Pressure regulators, 6000 psi
- Subs WECO 2" Fig. 1502 x WECO 3" Fig. 1502, WECO 2" Fig. 1502 x Halliburton 2"; WECO 3" Fig. 602 x Flange 3 1/8" and other.