TECHNICAL DATA SHEET

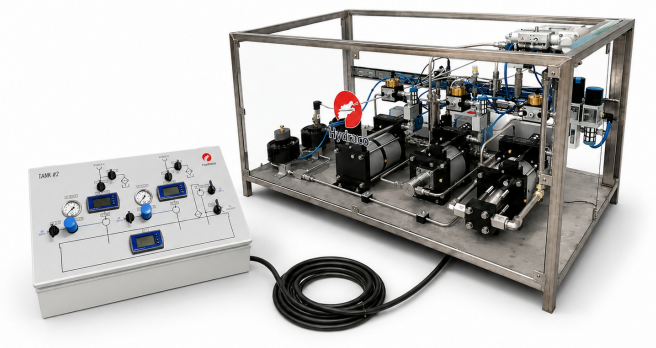
WTU

Workshop Test Unit

Built for demanding workshop testing.

The Hydraco WTU is an advanced, configurable workshop pressure-test platform in the StaySafe Pressure Testing Series. It is designed for fixed installation in a test bunker, test pit or workshop test area. The stainless-steel platform combines selected Hydraco HP test pumps, filling stages, test lines, fluid handling, instrumentation and control functions to meet the complete test requirement.

Every WTU includes a Hydraco RP - Remote Panel as the standard operator interface. A pneumatic, electrical or hybrid umbilical links the WTU and RP, allowing operation and monitoring from outside the pressure-test area. This arrangement is designated WTU-Remote. When manual operation at the unit is required, an optional integrated operator panel can be fitted to the WTU.



Illustrative WTU with standard Hydraco RP connected through an umbilical.

PRESSURE CAPABILITY

Up to 6640 bar

Final rating is defined for the complete circuit.

MAXIMUM NOMINAL FLOW

Up to 118 l/min

At 0 bar outlet pressure.

STAINLESS-STEEL FRAME

1500 x 800 x 800 mm

Estimated weight: approx. 260 kg

FIXED WORKSHOP PLATFORM

Advanced testing made easy

- Fixed stainless-steel frame and base plate
- One or multiple pump stages selected for the test
- High-flow filling and controlled high-pressure testing
- One or several isolated test lines
- Clear access for setup, inspection and maintenance
- Configured for water, oils, subsea fluids and chemicals

CONFIGURED FOR THE COMPLETE TEST DUTY

One system. Multiple test functions.

- Hydraco HP160 and HP250 test pumps
- Mixed flow and pressure stages
- Integrated or external fluid supply
- Reservoirs, feed pumps and fluid conditioning
- Pressure indication, transmitters and logging
- Hydraco RP supplied as the standard operator interface

Dimensions shown as L x W x H. Final weight varies with WTU configuration and installed equipment.

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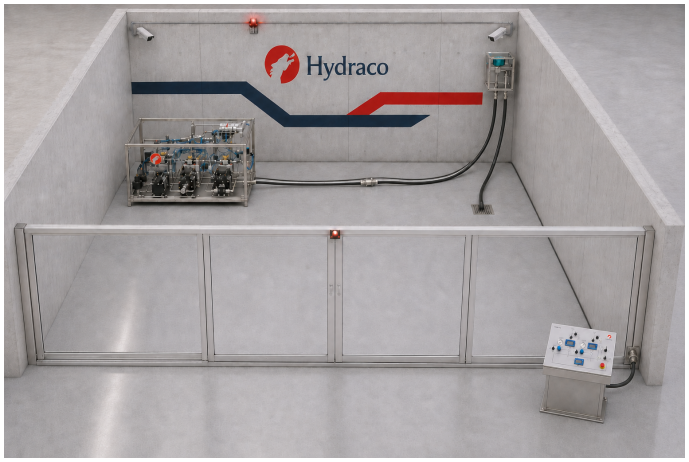
STANDARD REMOTE OPERATION

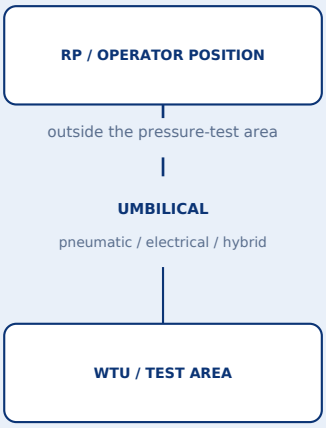
Control the test from outside the pressure-test area.

Every Hydraco WTU is supplied with an RP as the standard operator interface. The WTU is installed inside a bunker, test pit or controlled test area, while the RP is positioned outside the area containing pressurized equipment. The two are connected through an umbilical carrying the required pneumatic control lines, electrical power and signals, or both.



Illustrative standard WTU-Remote arrangement with the Hydraco RP connected through an umbilical.

STANDARD WTU CONTROL ARRANGEMENT



WTU POSITION

Inside the test area

Fixed skid within the controlled test zone.

OPERATING POSITION

Outside the test area

RP location selected for the installation.

SYSTEM CONNECTION

Pneumatic / electrical / hybrid

Length and interfaces selected for the system.

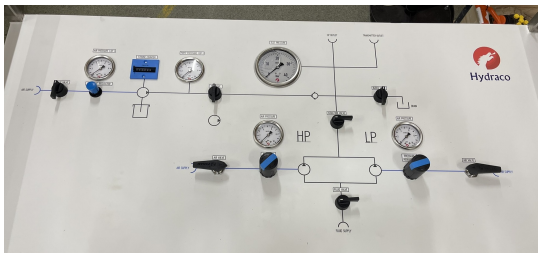
STANDARD OPERATING ARRANGEMENT

WTU with Hydraco RP

- RP positioned outside the pressure-test area
- Direct control of selected pumps, valves and regulators
- Pressure indication and system status at the operator position
- Umbilical length and interfaces selected for the installation

OPTIONAL UNIT-MOUNTED CONTROLS

Integrated operator panel



Example of an optional integrated operator panel with manual controls.

CONFIGURATION EXAMPLES

One platform. Many configurations.

Required pressure, filling flow, test volume, fluid supply and number of test lines determine the WTU. The arrangements below are common examples, not fixed models, and can be combined within one system.

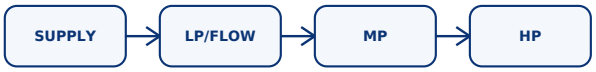
Single pump / flexible outlet(s)

One selected pump supplying one or several test lines.

High-flow + high-pressure

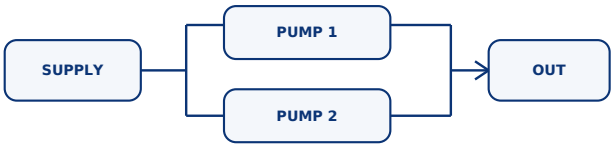
Fast filling combined with a separate controlled test-pressure stage.

Low + medium + high pressure



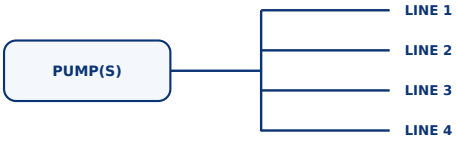
Three pump stages matched to different flow and pressure duties.

Twin pumps / duty sharing



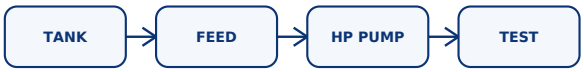
Equal or different pumps for more flow, staged duty or redundancy.

Multiple isolated test lines



Dedicated gauges, isolation and connection sizes can be used per line.

Tank + feed + conditioning



Reservoir, feed pump, filtration or dosing can be integrated with the test stages.

One WTU can combine these functions with additional pumps, manifolds, instruments and controls.

Pump count, line count, connection sizes, fluid handling and operating architecture are selected for the test.

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HYDRACO HP TEST PUMPS

HP160 pump selection - single acting

HP160 provides the broadest pressure range in the WTU selection, from high-flow low-pressure duty to ultra-high-pressure testing. Dual-air-motor 2S versions extend the available pressure range.

AVAILABLE RATIOS

2 to 800

19 selectable versions

MAXIMUM NOMINAL FLOW

Up to 56.52 l/min

At 0 bar and 2 Hz

PRESSURE CAPABILITY

Up to 6640 bar

With the complete circuit suitably rated

HP160 | SINGLE ACTING AND 2S VARIANTS

Pump model	Ratio	Max. flow at 0 bar (l/min)	Max. pressure at 8.3 bar air (bar)	Typical WTU fluid inlet	Typical WTU test outlet
HP160-S-02	2	56.52	17	3/4" BSP(F)	3/4" BSP(F)
HP160-S-04	4	48.24	33	3/4" BSP(F)	3/4" BSP(F)
HP160-S-07	7	29.88	58	3/4" BSP(F)	3/4" BSP(F)
HP160-S-10	10	18.84	83	3/4" BSP(F)	3/4" BSP(F)
HP160-S-16	16	12.00	133	3/4" BSP(F)	3/4" BSP(F)
HP160-S-20	20	9.12	166	3/4" BSP(F)	3/4" BSP(F)
HP160-S-28	28	6.72	232	1/2" BSP(F)	1/2" BSP(F)
HP160-S-40	40	4.68	332	1/2" BSP(F)	1/2" BSP(F)
HP160-S-64	64	3.02	531	3/8" BSP(F)	3/8" BSP(F)
HP160-S-80	80	2.40	664	3/8" BSP(F)	3/8" BSP(F)
HP160-S-100	100	1.92	830	3/8" BSP(F)	3/8" BSP(F)
HP160-S-130	130	1.44	1,079	3/8" BSP(F)	3/8" BSP(F)
HP160-S-170	170	0.72	1,411	3/8" BSP(F)	3/8" HP(F)
HP160-S-240	240	0.48	1,992	3/8" BSP(F)	1/4" HP(F)
HP160-S-300	300	0.456	2,490	1/4" BSP(F)	1/4" HP(F)
HP160-S-400	400	0.36	3,320	1/4" BSP(F)	1/4" HP(F)
HP160-2S-512	512	0.468	4,250	1/4" BSP(F)	1/4" HP(F)
HP160-2S-630	630	0.384	5,229	1/4" BSP(F)	1/4" HP(F)
HP160-2S-800	800	0.252	6,640	1/4" BSP(F)	1/4" HP(F)

Maximum flow at 0 bar and 2 Hz. Pressure values are based on 8.3 bar drive air. Actual flow reduces with pressure. Final working rating is set by the complete circuit.

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HYDRACO HP TEST PUMPS

HP160 pump selection - double acting

Double-acting HP160 pumps provide increased delivery at the selected pressure ratio. Dual-air-motor 2D versions add further flow capability for demanding filling and pressure-build duties.

HP160 | DOUBLE ACTING

Standard air-motor versions

Pump model	Ratio	Max. flow at 0 bar (l/min)	Max. pressure at 8.3 bar air (bar)	Typical WTU fluid inlet	Typical WTU test outlet
HP160-D-04	4	90.00	33	3/4" BSP(F)	3/4" BSP(F)
HP160-D-07	7	60.00	58	3/4" BSP(F)	3/4" BSP(F)
HP160-D-10	10	35.28	83	3/4" BSP(F)	3/4" BSP(F)
HP160-D-16	16	22.56	133	3/4" BSP(F)	3/4" BSP(F)
HP160-D-20	20	17.28	166	3/4" BSP(F)	3/4" BSP(F)
HP160-D-28	28	12.72	232	1/2" BSP(F)	1/2" BSP(F)
HP160-D-40	40	8.76	332	1/2" BSP(F)	1/2" BSP(F)
HP160-D-64	64	5.64	531	3/8" BSP(F)	3/8" BSP(F)
HP160-D-80	80	4.56	664	3/8" BSP(F)	3/8" BSP(F)
HP160-D-100	100	3.60	830	3/8" BSP(F)	3/8" BSP(F)
HP160-D-130	130	2.76	1,079	3/8" BSP(F)	3/8" BSP(F)
HP160-D-170	170	1.44	1,411	3/8" BSP(F)	3/8" BSP(F)
HP160-D-240	240	0.96	1,992	3/8" BSP(F)	1/4" HP(F)
HP160-D-300	300	0.84	2,490	1/4" BSP(F)	1/4" HP(F)
HP160-D-400	400	0.60	3,320	1/4" BSP(F)	1/4" HP(F)

HP160 | DOUBLE ACTING | DUAL AIR MOTOR

2D high-flow variants

Pump model	Ratio	Max. flow at 0 bar (l/min)	Max. pressure at 8.3 bar air (bar)	Typical WTU fluid inlet	Typical WTU test outlet
HP160-2D-20	20	35.34	166	3/4" BSP(F)	3/4" BSP(F)
HP160-2D-32	32	22.62	266	3/4" BSP(F)	3/4" BSP(F)
HP160-2D-40	40	17.28	332	1/2" BSP(F)	1/2" BSP(F)
HP160-2D-56	56	12.72	465	1/2" BSP(F)	1/2" BSP(F)
HP160-2D-80	80	8.832	664	3/8" BSP(F)	3/8" BSP(F)
HP160-2D-130	130	5.64	1,079	3/8" BSP(F)	3/8" BSP(F)
HP160-2D-160	160	4.56	1,328	3/8" BSP(F)	3/8" BSP(F)
HP160-2D-200	200	3.60	1,660	3/8" BSP(F)	3/8" HP(F)
HP160-2D-260	260	2.04	2,158	3/8" BSP(F)	1/4" HP(F)
HP160-2D-355	355	1.50	2,947	3/8" BSP(F)	1/4" HP(F)

Maximum flow at 0 bar and 2 Hz. Pressure values are based on 8.3 bar drive air. Actual flow reduces as outlet pressure increases; final WTU connections and working rating are confirmed for the selected configuration.

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HYDRACO HP TEST PUMPS

HP250 pump selection

HP250 is the high-flow choice for high-volume test duties and faster filling or pressure build-up. Single- and double-acting versions can be used alone or combined with an HP160 high-pressure stage.

SINGLE ACTING

Up to 117.75 l/min

At 0 bar and 1.66 Hz

DOUBLE ACTING

Up to 54.90 l/min

At 0 bar and 1.66 Hz

AVAILABLE RATIOS

4 to 240

Pressure values up to 1992 bar

HP250 | SINGLE ACTING

Pump model	Ratio	Max. flow at 0 bar (l/min)	Max. pressure at 8.3 bar air (bar)	Typical WTU fluid inlet	Typical WTU test outlet
HP250-S-04	4	117.75	33	1" BSP(F)	1" BSP(F)
HP250-S-10	10	75.30	83	3/4" BSP(F)	3/4" BSP(F)
HP250-S-25	25	29.40	208	3/4" BSP(F)	3/4" BSP(F)
HP250-S-40	40	18.80	332	3/4" BSP(F)	3/4" BSP(F)
HP250-S-69	69	10.60	573	1/2" BSP(F)	1/2" BSP(F)
HP250-S-100	100	7.30	830	1/2" BSP(F)	1/2" BSP(F)
HP250-S-156	156	4.70	1,295	3/8" BSP(F)	3/8" HP(F)
HP250-S-190	190	2.70	1,577	3/8" BSP(F)	3/8" HP(F)
HP250-S-240	240	2.20	1,992	3/8" BSP(F)	3/8" HP(F)

HP250 | DOUBLE ACTING

Pump model	Ratio	Max. flow at 0 bar (l/min)	Max. pressure at 8.3 bar air (bar)	Typical WTU fluid inlet	Typical WTU test outlet
HP250-D-25	25	54.90	208	1" BSP(F)	1" BSP(F)
HP250-D-40	40	35.10	332	3/4" BSP(F)	3/4" BSP(F)
HP250-D-69	69	19.70	573	3/4" BSP(F)	3/4" BSP(F)
HP250-D-100	100	13.70	830	3/4" BSP(F)	3/4" BSP(F)
HP250-D-156	156	8.70	1,295	3/8" BSP(F)	3/8" HP(F)
HP250-D-190	190	7.10	1,577	3/8" BSP(F)	3/8" HP(F)
HP250-D-240	240	5.60	1,992	3/8" BSP(F)	3/8" HP(F)

Maximum flow at 0 bar and 1.66 Hz (100 strokes/min). Pressure values are based on 8.3 bar drive air. Actual flow reduces with pressure; final working rating is set by the complete WTU circuit.

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CONFIGURED TO ORDER

The WTU. A complete pressure-test system.

Hydraco combines the required pumps, test lines, controls, fluid handling and safety functions in one fixed workshop platform. Wetted materials and seals can be selected for water, mineral oils, water-based hydraulic fluids, subsea fluids and a wide range of chemicals.

Hydraco RP - Remote Panel, supplied as the standard WTU operator interface.

Optional AVS high-point venting skid with visual indication.

Optional warning status light selected for the test-area arrangement.

Core WTU platform

- Fixed stainless-steel frame and base plate
- Selected Hydraco HP test pumps
- Hydraco RP - Remote Panel with system umbilical
- Integrated tubing, fittings and manifolds
- Configured pressure regulation and isolation
- Connection points for the selected test lines

Available configurations & options

- Optional integrated operator panel on the WTU
- Pneumatic, electrical or hybrid actuation
- Emergency stop
- Warning status lights
- AVS - Air Venting Skid
- Integrated reservoir
- External-tank connection
- Diaphragm feed pump
- Chemical-injection tank and dosing pump
- Filtration and fluid conditioning
- Additional or mixed-pressure test lines
- Pressure transmitters and digital indication
- Data logging and Hydraco test software
- Protective panels or enclosure
- Lifting points or forklift pockets
- ATEX / Ex configuration
- Additional system-specific functions

ATEX / Ex configuration available as an option

The required hazardous-area specification is confirmed for each delivery.

Tell us about the pressure-test system you need.

Hydraco will configure the WTU, controls and operating arrangement for the complete test duty.

CONTACT HYDRACO

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