



爆破测试台

BURST TEST STAND

BPS20D



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通用规格



GENERAL SPECIFICATIONS

BPS20D 是用来对柔性软管、管子、接头、快速接头、阀门等进行爆破测试或加压测试的测试台。

此测试台使用液压油。

通过其它附加选项，此机器可进行：

- 爆破和/或加压测试
- 长度变化测试(ISO1402)
- 验证测试

此装置使用特殊的液压回路，根据以下规范建立一个由固定相位和带受控压力梯度的压力等级组成的测试周期：

SAEJ343 - DIN20024 - ISO18869 - ISO1402。

连接系统由两个歧管组成，一个是固定装置，另一个则是移动装置，移动歧管安装在一个重型导轨上，可以承受爆破的力量。

所有类型的接头都可以牢固地固定在歧管上，因此，完全可以使用本产品未包括的适用适配器。

需要注意被测部件的总体积；部件的体积必须保持在测试台的最大性能范围内，才能获得所需的压力梯度。

此测试台的循环可以：

- 要设置压力形状，可以编辑点对（时间-压力）。
- 用视觉流量指示器加油和泄油
- 压力保持（无时间限制）
- 部件爆破

技术规格：

- 低压测试：从 20 (290)至 300 (4,351) bar (psi)
- 高压测试：从 80 (1,160)至 2.000 (29,008) bar (psi)
- 流量输送：

- 10 lt/1' (2.6 GPM)，用于加注和吹气
- 0,75 lt/1' (0.2 GPM) 直至最大压力

- 增压器排量：500 cc (30.5 in³)
- 歧管连接：2" BSP

供货包括：

- 2 个适配器，用于公接头 2"
- 2 个适配器，用于公接头 1/4"
- 测试舱尺寸：2.490 (98") x 670 (26") x 790 (31") mm (长；深；高)

仪表：

- 压力传感器 f.s.3.500 bar (72,518 psi)，等级 0,2% f.s.

选项：

- 激光系统旁的软管长度变化(*) (用于公称直径 ≥ 10 mm 的软管)
 - 编码器系统软管长度变化 (用于公称直径 > 8 mm 的软管)
 - 额外的传感器，用于低压 f.s.400 bar (5,800 psi)，等级 0,25%
 - 验证测试 (仅用于高压传感器)
 - 用真空系统快充软管(软管 > 1-1/4")
 - 盲部件测试回路(即半耦合)
- (*) 要求安装选项 f ("盲部件测试回路")。

安全装置：

- 联锁装置，避免在开门状态下运行测试
- 如果门开着将无法开始加压
- 测试舱包壳在测试区域配备金属覆层，可吸收进射和液体泄漏
- 应急按钮

电源：

- 标准电源：400 VAC - 50 Hz - 14 kVA (60 Hz 和其它电压可应要求提供)
- 压缩空气

重量和尺寸：

- 3.250 (128") x 1.520 (60") x 1.700 (67") mm (长；深；高)
- 高 = 1.900 mm (75")带柱灯
- 歧管间连接的最大距离：1.646 mm (64.8")
- 净重 1.800 kg (4,000 lbs.)

颜色：

- 标准：灰色 Bimal RAL 7035

供货内不包括流体和适配器

BPS20D is a Test Stand for burst test or pressurize test of flexible hoses, pipes, fitting, quick couplings, valves, etc.

The Test Stand uses hydraulic oil.

The machine with its extra options is able to run:

- burst and/or pressurize tests
- variation in length test (ISO1402)
- proof test

This unit uses a special hydraulic circuit with which it can create a test cycle composed by stationary phases and pressure ramps with controlled pressure gradient according with the following Norms:

SAEJ343 - DIN20024 - ISO18869 - ISO1402.

The connection system is composed by two manifolds, one of them is fix and the other is mobile, the mobile manifold is installed on a heavy-duty guide able to withstand the forces due to the burst.

All fittings type can be firmly fixed to the manifolds, it is enough to use suitable and appropriate adapters not included in this offer.

It is necessary to pay attention on the total volume of the component under test; the volume of the components has to stand within the maximum test stand performances in order to obtain the wished pressure gradient.

The cycle of the Test Stand allows:

- To set up the pressure shape, it is possible by editing pairs of points (time-pressure).
- Filling and bleeding with visual flow indicator
- Pressure keeping (without time limit)
- Burst of component

TECHNICAL SPECIFICATIONS:

- Low pressure Test: from 20 (290) up to 300 (4,351) bar (psi)
- High pressure Test: from 80 (1,160) up to 2.000 (29,008) bar (psi)
- Flow deliveries:
 - 10 lt/1' (2.6 GPM) for filling and air blow out
 - 0,75 lt/1' (0.2 GPM) up to the maximum pressure
- Pressure intensifier displacement: 500 cc (30.5 in³)
- Manifold connection: 2" BSP

Supply includes:

- 2 adapters for male fittings 2"
- 2 adapters for male fittings 1/4"
- Test chamber size: 2.490 (98") x 670 (26") x 790 (31") mm (l; d; h)

INSTRUMENTS:

- Pressure transducer f.s. 3.500 bar (72,518 psi), cl 0,2% f.s.

OPTIONS:

- ΔL hoses by laser system (*) (for hoses DN ≤ 10 mm)
 - ΔL hoses by encoder system (for hoses DN > 8 mm)
 - Additional transducer for low-pressure f.s. 400 bar (5,800 psi), cl. 0.25%
 - Proof test (with high-scale pressure transducer only)
 - Quick hoses filling with vacuum system (hoses > 1-1/4")
 - Circuit for test on blind components (i.e. semi-couplings)
- (*) requires the f optional ("Circuit for test on blind components") to be installed.

SAFETY DEVICES:

- Interlock avoids to run the test with open doors
- It is impossible to start pressurization if the door is open
- Chamber clad with metal covers of the test area to absorb shots and fluid leakages
- Emergency push-button

POWER SUPPLY:

- Electric Standard Supply: 400 VAC - 50 Hz - 14 kVA (60 Hz and other voltages available on request)
- Compressed Air

DIMENSIONS AND WEIGHT:

- 3.250 (128") x 1.520 (60") x 1.700 (67") mm (l; d; h)
- h = 1.900 mm (75") with column lights
- Maximum distance between manifold connections: 1.646 mm (64.8")
- Net Weight 1.800 kg (4,000 lbs)

COLOR:

- Standard: Grey Bimal RAL 7035

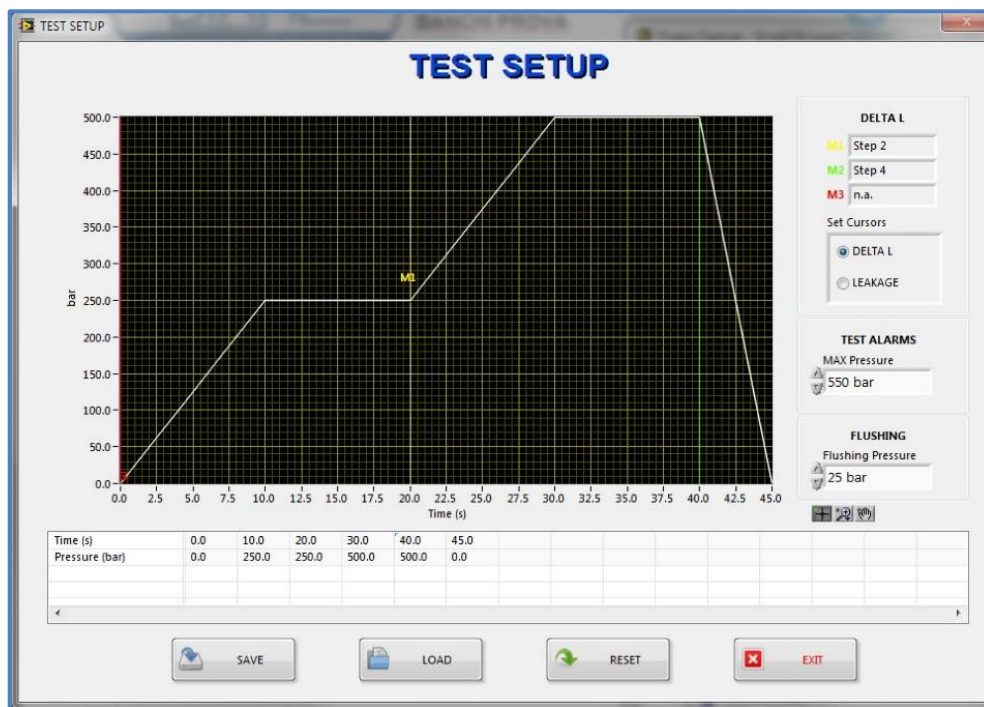
Fluid and adapters are not included in the supply

本机配备了工业级 PC 和 National Instruments 的数据采集系统。

Bimal 开发了一个专用 PC 软件，可用于设置测试参数和打印测试报告。请参阅以下操作员界面窗口来编辑点对（时间-压力）。

The machine is equipped with an industrial PC, and a National Instruments acquisition data system.

Bimal has developed a dedicated PC software able to set the test parameters and print out the test reports. See below the operator interface window to edit pairs of points (time-pressure).



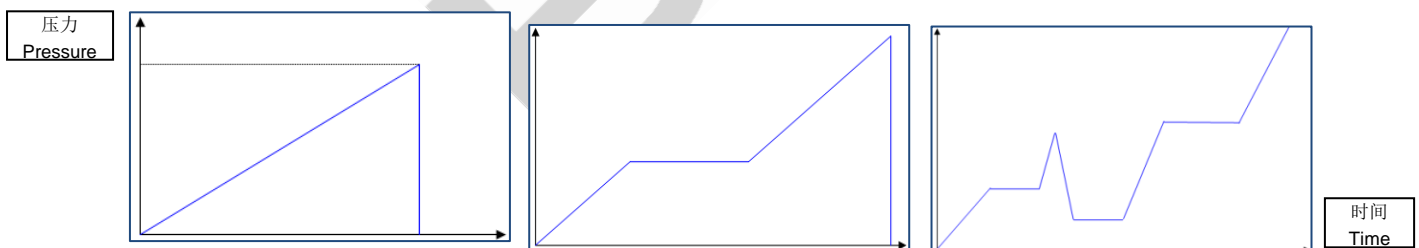
本测试台符合工业 4.0 的要求，通过互联网连接，它可以：

- 以 XML 格式的文件通过 REST 协议与外部软件接口，以便获取有关机器状态的信息，并执行对机器的操作控制和管理（Web 服务）
- 使用我们技术人员的远程辅助服务，可以选择通过智能眼镜的增强现实
- 以与公司网络许可和授权兼容的方式获得机器的远程控制

The test stand meets the requirements of Industry 4.0, because through an internet connection, it allows:

- To interface with external software through REST protocol via files in XML format, in order to obtain information on the status of the machine and carry out operations of control and management of the same (Web Service)
- To use the Remote assistance service from our technicians, optionally also in augmented reality by means of smart glasses
- To obtain remote control of the machine, in a way compatible with the permits and authorizations of the corporate network

这些图片显示加压周期的不同示例：恒定梯度至爆破压力；斜升至工作压力再至固定压力，然后再斜升至爆破压力；各种压力斜坡的自定义波形



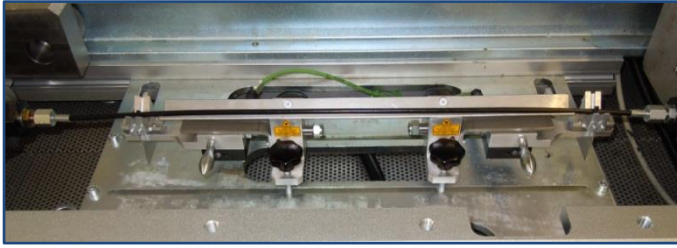
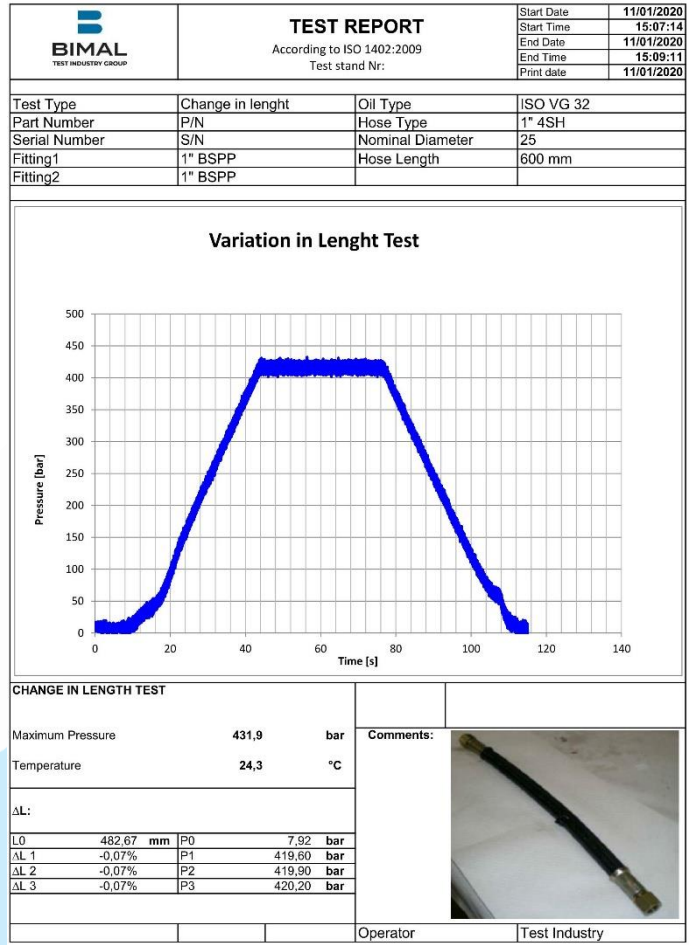
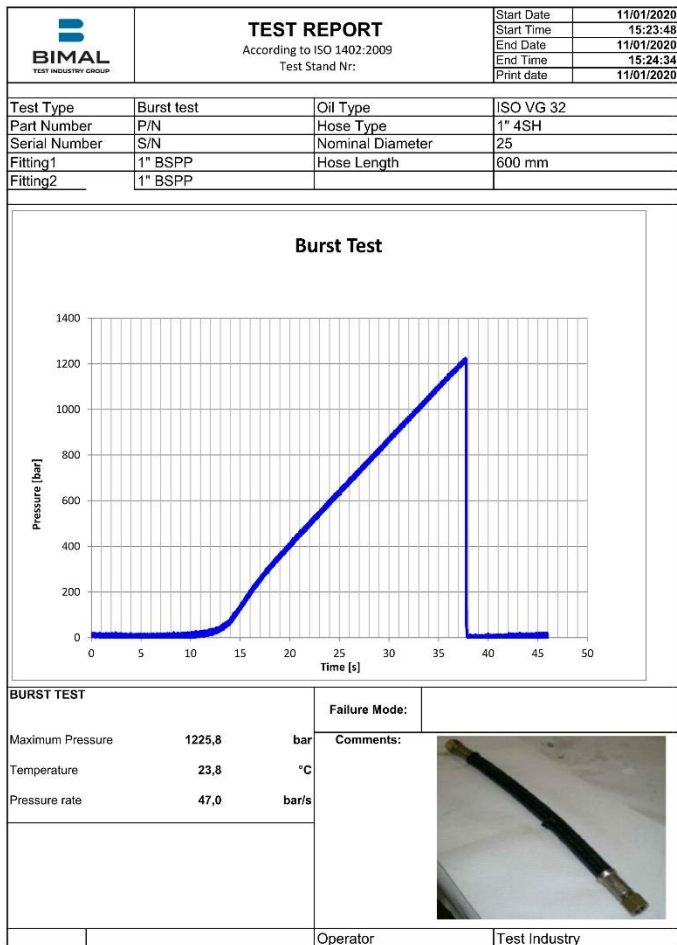
The images show different examples of pressurizing cycles: constant gradient up to burst pressure; ramp up to working pressure then stationary pressure and then ramp up to burst pressure; customized wave form with various ramp of pressure

注意：降低压力斜坡仅可运行高压测试

Note: Decreasing pressure ramp performable only running the high pressure tests

下图显示了由 PC 生成的测试报告示例

The picture below shows an example of test report issued by the PC



激光系统旁软管长度变化 公称直径 ≤ 10 mm
ΔL hoses DN ≤ 10 mm by laser system



编码器系统旁软管长度变化 公称直径 > 8 mm
ΔL hoses DN > 8 mm by encoder system

推荐用油:

根据 ISO 6803 和 SAE J 343 标准, 本测试台可使用从 22 级到 46 级的 ISO VG 等级机油运行。该测试台还可以与其他液压油配合使用, 比如 MIL-PRF-5606 和 MIL-PRF-83282; 如要核实所选机油的特性是否合适, 并且与测试台的性能兼容, 请您与我们联系。

图像和技术规格可以更改, 恕不另行通知

SUGGESTED OIL:

The test stand can operate with ISO VG oil classes from grade 22 to grade 46, according to ISO 6803 and SAE J 343 standards. The test stand can also operate with other hydraulic oils such as MIL-PRF-5606 and MIL-PRF-83282; we invite you to contact us in order to verify that the characteristics of the chosen oil are suitable and compatible with the performances of the test stand.

Images and technical specifications can be changed without notice

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