

HYPUR-MATE Weld Testers



- **Patented multi-schedule seal design ¹**
- **Standard range from 1/2" to 24" ²**
- **Rapid hydraulic actuation from 4" upwards ³**
- **Significant savings on shutdown time**
- **Suitable for fluid & and gas test mediums**
- **Simple, cost effective, reliable hydrostatic testing**
- **Minimal test medium required**
- **Standard pressure rating to ANSI 2500**

hydratight®

Are you still using expensive, time-consuming full hydrostatic testing methods?

Save substantial amounts of both time and money with **HYPUR-MATE[→] WELD TESTERS** from Hydratight.

When work is carried out on any piping system, there is normally a requirement to carry out a test to ensure the work is fit for purpose. The test would usually take the form of a hydrostatic pressure test. This necessitates the time-consuming method of the entire system being filled with a test fluid and pressurised to a pre-determined pressure (normally 1.5 times working pressure) for a specified period up to 24 Hr's. It is often the case that the whole piping system does not require testing nor is it possible/practical to test the whole system. Therefore, there will be a requirement to isolate the area to be tested, by breaking out a section of pipe and blinding-off the ends by pipe freezing upstream of the test area. The freezing method is costly, time-consuming, messy and not a guaranteed success. Upon completion of the test, disposing of the contaminated fluid can be an expensive problem. Utilising this form of hydrostatic testing requires much planning and supervision.

Weld testers are used to perform localised hydrostatic testing of welded pipe components and joints. The weld tester is designed to induce maximum circumferential stress (hoop stress) into the test weld, this ensures that the predicted mode of failure due to hoop stress alone is considered. The pipe will always seek to fail by bursting in the longitudinal mode due to the principal hoop stress, which can be shown to be twice the axial stress in any situation. Considering the combination of axial and circumferential stresses, then the resultant stresses will always be less than the hoop stress induced by the weld tester, therefore the stresses induced by the weld tester offer a worst case-loading scenario.

HYPUR-MATE[→] WELD TESTER features:

■ **HYPUR-MATE[→] MULTI-SCHEDULE SEALS** ¹

- Unique patented ultra high expansion seals allow one diameter of tester with A & B type seals, pistons and seal carriers, to service an entire pipe diameter and its schedules.
- The seals are also designed to offer a large diametric clearance in order to clear weld roots, allow for pipe ovality and for ease of access.
- The **HYPUR-MATE[→]** multi-schedule seal has a large footprint, making the testers more tolerant of pipe corrosion, seams and deformation.
- The seals can be energised independently for use in double block and bleed mode.

■ **RAPID HYDRAULIC OPERATION** ³

- The tester is hydraulically operated in the range from 4" upwards giving a simple to operate unit with rapid deployment characteristics.

■ **FLANGE WELD TESTER**

- The **HYPUR-MATE[→]** flange weld tester is configured for the testing of weld neck flanges from 150# to 2500#.

■ **JOINT WELD TESTER**

- The unit is designed to access straight runs of pipe and to test the weld to the pipe. The unit can be wheel mounted and sucker rod attached.

■ **THROUGH PORT MONITORING**

- All hydraulic units are supplied with through port monitoring to enable the unit to be used in double block and bleed mode, maximum back pressure 5 Psi. This affords the monitoring of the fluid below the tester whilst the centre port connection monitors the isolated area between the seals.

■ **VERSATILITY**

- Both the internal weld tester and flanged weld tester can be configured for testing across tee pieces or valve bodies.

■ **BESPOKE DESIGN SERVICE**

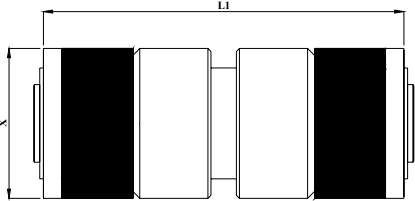
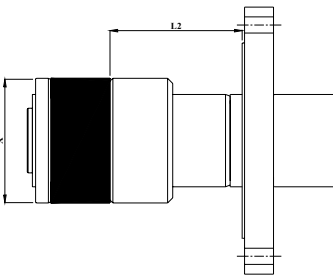
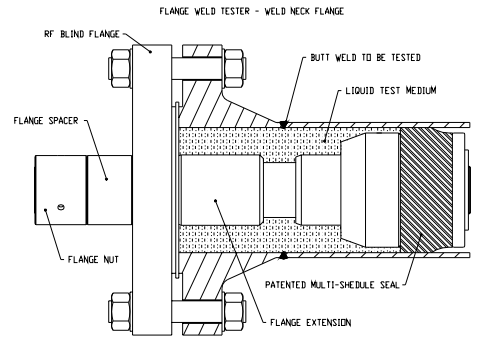
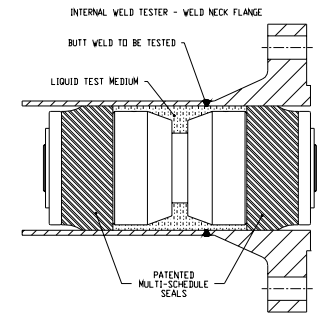
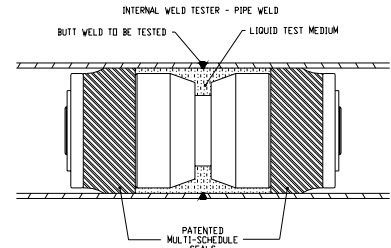
- Special testers can be designed to suit customers individual requirement

1. Multi-schedule seals available on testers 2 ½" upwards. Testers are schedule specific below 2 ½".
2. Sizes up to 24" only.
3. Weld testers below 4" are mechanically operated only.

hydratight®

- Schedule Specific
- A Type Tester
- B Type Tester
- Manufactured To Order

Nominal Pipe Size DN in	Outside Diameter in mm	ASME B36.10 M PIPE SCHEDULES WALL THICKNESS															
		10	20	30	STD	40	60	XS	80	100	120	140	160	XXS			
3/4"	1.050 26.7				0.113 2.9	0.113 2.9		0.154 3.9	0.154 3.9				0.219 5.6	0.308 7.8			
1"	1.315 33.4				0.133 3.4	0.133 3.4		0.179 4.5	0.179 4.5				0.250 6.4	0.358 9.1			
1 1/4"	1.660 42.2				0.140 3.6	0.140 3.6		0.191 4.9	0.191 4.9				0.250 6.4	0.382 9.7			
1 1/2"	1.900 48.3				0.145 3.7	0.145 3.7		0.200 5.1	0.200 5.1				0.281 7.1	0.400 10.2			
2"	2.375 60.3				0.154 3.9	0.154 3.9		0.218 5.5	0.218 5.5				0.344 8.7	0.436 11.1			
2 1/2"	2.875 73.0				0.203 5.2	0.203 5.2		0.276 7.0	0.276 7.0				0.375 9.5	0.562 14.0			
3"	3.500 88.9				0.216 5.5	0.216 5.5		0.300 7.6	0.300 7.6				0.438 11.1	0.600 15.2			
3 1/2"	4.000 101.6				0.226 5.7	0.226 5.7		0.318 8.1	0.318 8.1								
4"	4.500 114.3				0.237 6.0	0.237 6.0		0.337 8.6	0.337 8.6		0.438 11.1		0.531 13.5	0.674 17.1			
5"	5.563 141.3				0.258 6.6	0.258 6.6		0.375 9.5	0.375 9.5		0.500 12.7		0.625 15.9	0.750 19.1			
6"	6.625 168.3				0.280 7.1	0.280 7.1		0.432 11.0	0.432 11.0		0.562 14.3		0.719 18.3	0.864 21.9			
8"	8.625 219.1		0.250 6.4	0.277 7.0	0.322 8.2	0.322 8.2	0.406 10.3	0.500 12.7	0.500 12.7	0.594 15.1	0.719 18.3	0.812 20.6	0.906 23.0	0.875 22.2			
10"	10.750 273.1		0.250 6.4	0.307 7.8	0.365 9.3	0.365 9.3	0.500 12.7	0.500 12.7	0.594 15.1	0.719 18.3	0.844 21.4	1.000 25.4	1.125 28.6				
12"	12.750 323.9		0.250 6.4	0.330 8.4	0.375 9.5	0.406 10.3	0.562 14.3	0.500 12.7	0.688 17.5	0.844 21.4	1.000 25.4	1.125 28.6	1.312 33.3				
14"	14.000 355.6	0.250 6.4	0.312 7.9	0.375 9.5	0.375 9.5	0.594 15.1	0.500 12.7	0.750 19.1	0.938 23.8	1.094 27.8	1.250 31.8	1.250 31.8	1.406 35.7				
16"	16.000 406.4	0.250 6.4	0.312 7.9	0.375 9.5	0.375 9.5	0.594 15.1	0.500 12.7	0.750 19.1	0.938 23.8	1.094 27.8	1.250 31.8	1.250 31.8	1.406 35.7				
18"	18.000 457.2	0.250 6.4	0.312 7.9	0.375 9.5	0.375 9.5	0.594 15.1	0.500 12.7	0.750 19.1	0.938 23.8	1.094 27.8	1.250 31.8	1.250 31.8	1.406 35.7				
20"	20.000 508.0	0.250 6.4	0.312 7.9	0.375 9.5	0.375 9.5	0.594 15.1	0.500 12.7	0.750 19.1	0.938 23.8	1.094 27.8	1.250 31.8	1.250 31.8	1.406 35.7				
22"	22.000 558.8	0.250 6.4	0.312 7.9	0.375 9.5	0.375 9.5	0.594 15.1	0.500 12.7	0.750 19.1	0.938 23.8	1.094 27.8	1.250 31.8	1.250 31.8	1.406 35.7				
24"	24.000 609.6	0.250 6.4	0.312 7.9	0.375 9.5	0.375 9.5	0.594 15.1	0.500 12.7	0.750 19.1	0.938 23.8	1.094 27.8	1.250 31.8	1.250 31.8	1.406 35.7				



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1 1/4"	1.660 42.2	0.140 3.6	0.191 4.9	0.382 9.7													
1 1/2"	1.900 48.3	0.145 3.7	0.200 5.1	0.400 10.2													
2"	2.375 60.3	0.154 3.9	0.218 5.5	0.436 11.1													
2 1/2"	2.875 73.0	0.203 5.2	0.276 7.0	0.562 14.0													
3"	3.500 88.9	0.216 5.5	0.276 7.0	0.300 7.6	0.260 6.6	0.281 7.1	0.300 7.6	0.600 15.2									
3 1/2"	4.000 101.6	0.226 5.7	0.276 7.0	0.318 8.1	0.250 6.4	0.281 7.1	0.318 8.1										
4"	4.500 114.3	0.237 6.0	0.276 7.0	0.337 8.6	0.219 5.6	0.237 6.0	0.250 6.4	0.281 7.1	0.312 7.9	0.337 8.6	0.375 9.5	0.750 19.1					
5"	5.563 141.3	0.258 6.6	0.276 7.0	0.375 9.5	0.281 7.1	0.281 7.1	0.344 8.7	0.375 9.5	0.438 11.1	0.438 11.1	0.438 11.1	0.438 11.1	0.438 11.1	0.438 11.1			
6"	6.625 168.3	0.280 7.1	0.276 7.0	0.432 11.0	0.280 7.1	0.280 7.1	0.344 8.7	0.375 9.5	0.432 11.0	0.432 11.0	0.432 11.0	0.438 11.1	0.500 12.7	0.875 22.2			
8"	8.625 219.1	0.322 8.2	0.276 7.0	0.406 10.3	0.280 7.1	0.280 7.1	0.344 8.7	0.375 9.5	0.432 11.0	0.432 11.0	0.432 11.0	0.438 11.1	0.500 12.7	0.875 22.2			
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14"	14.000 355.6	0.438 11.1	0.276 7.0	0.600 15.2	0.280 7.1	0.280 7.1	0.344 8.7	0.375 9.5	0.432 11.0	0.432 11.0	0.432 11.0	0.438 11.1	0.500 12.7	0.875 22.2			
16"	16.000 406.4	0.475 12.0	0.276 7.0	0.656 16.7	0.280 7.1	0.280 7.1	0.344 8.7	0.375 9.5	0.432 11.0	0.432 11.0	0.432 11.0	0.438 11.1	0.500 12.7	0.875 22.2			
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24"	24.000 609.6	0.575 14.5	0.276 7.0	1.032 26.2	0.280 7.1	0.280 7.1	0.344 8.7	0.375 9.5	0.432 11.0	0.432 11.0	0.432 11.0	0.438 11.1	0.500 12.7	0.875 22.2			

Weld tester Dims. (mm)	Nominal Pipe Dia	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	
		X Dia	Schedule Specific						52/70	74/91	117/138	166/185	210/228	243/273	273/303.5	309/348	352/425	387/425	440/498
		L1	175	175	185	200	210	235	181-195	246	335	446	446	605	605	740	740	740	740
L2	To suit class of weld neck flange																		
	Mechanically Operated							Hydraulically operated multi-schedule Through ported											