

IN  
TEST  
WE  
TRUST



TEST BENCHES  
FOR VALVES, PIPES  
& ACTUATORS

**think' PC PROGETTI**

# IN TEST WE TRUST

That's our mission!

We do trust in test results as key factor for a successful business. Testing products to improve their quality and be protected from any risk doing it.

Think! PC PROGETTI offers a complete selection of test benches rigorously designed according to the most important international standards and specific custom necessities.

Our test benches are a successful combination of modern engineering and advanced technology. They are a reliable tool for our clients that are producing high quality components all around the world. We believe that our clients deserve the best available resources on the market.

Every day our experienced team commits to our goal of building extremely professional machinery that ensures the best safety level for their users.

In order to reach this target we take care of the whole production process having the advice of certified bodies.

Design teams are always focused on granting operators' safety along with competitiveness, reliability and productivity of our test benches. All test units are fully interconnectable to a company's LAN network, driving workshops testing areas to the 4th industrial revolution, safe production processes completed by full data collection.

Together with our main product lines we offer customization of test benches to specific technical requests.

Specialized technical support on-site and TELESERVICE remote monitoring make after-sale services very efficient. This general catalogue represents only part of our testing units designed in the last 20 years of activity. Contact our commercial network for further information: most likely your test target has already been achieved and we can share the best technical solution.

Besides, our website [www.pcprogetti.it](http://www.pcprogetti.it) is kept updated with the latest products on offer.

Come to visit us, you'll be very WELCOME.





**think'PC PROGETTI**

# INDEX



## Horizontal test benches

Page	Model	CLAMP	POWER
10	BO-2CV/4000	3	4000 TON
11	BO-2V/2800	2	2800 TON
12	BO-2V/2500	2	2500 TON
13	BO-2V/1800L	2	1800 TON
14	BO-2V/1600, BO-2CV/1600	2/3	1600 TON
15	BO-2V/1200, BO-2CV/1200	2/3	1200 TON
16	BO-2CV/750, BO-2CV/750L	3	750 TON
17	BO-2V/600, BO-2V/600L	2	600 TON
18	BO-2CV/500	3	500 TON
19	BO-2V/450, BO-2V/450SH	2	450 TON
20	BO-2V/250	2	250 TON
21	BO-2CV/250	3	250 TON
22	BO-2V/150	2	150 TON
23	BO-2CV/100, BO-2CV/100-LAB	3	100 TON
24	BO-C/90SH	1	90 TON
25	BO-CC/40	1	4 / 40 TON



## Horizontal test benches with 30° reaction column disposal

Page	Model	CLAMP	POWER
26	BO30-2V/850, BO30-2CV/850	2/3	850 TON
27	BO30-2CV/750	3	750 TON
28	BO30-2CV/500	3	500 TON
29	BO30-2CV/250L	3	250 TON
30	BO30-CV/50P	3	50 TON
31	BO30-CV/40P	3	40 TON
32	BO30-1V/40SH, BO30-2CV/40SH	2/3	40 TON



## Horizontal test benches with 45° reaction column disposal

Page	Model	CLAMP	POWER
33	BO45-2CV/3000	3	3000 TON
34	BO45-2CV/2000	3	2000 TON
35	BO45-2V/1600	2	1600 TON
36	BO45-2V/850	2	850 TON
37	BO45-2V/600	2	600 TON
38	BO45-2CV/500	3	500 TON
39	BO45-2CV/400	3	400 TON
40	BO45-2CV/250	3	250 TON
41	BO45-2CV/100	3	100 TON



## Horizontal PIPE test benches

Page	Model	CLAMP	POWER
44	BOT-2CSV/3000	8	3000 TON
45	BOT-2CV/2000	3	2000 TON
46	BOT-2CSC/1200, BOT-2CSV/1200	1/2	1200 TON
47	BOT45-2V/250	2/8	250 TON



## Vertical test benches

Page	Model	CLAMP	POWER
50	BV-PMC/2000	1	2000 TON
51	BV-PMC/900	1	900 TON
52	BV-PMC/800	1	800 TON
53	BV-PMC/650W	1	650 TON
54	BV-PMC/650	1	650 TON
55	BV-PMV/600	2	600 TON
56	BV-PMC/550	1	550 TON
57	BV-PMC/500S, BV-PMC/100SP	1	500 / 100 TON
58	BV-PMC/350	1	350 TON
59	BV-PMV/350	2	350 TON
60	BV-PMV/200	2	200 TON
61	BV-PMC/200-2	1	200 TON
62	BV-PMC/200SP	1	200 TON
63	BV-PMC/200SH	1	200 TON
64	BV-PMC/200LP	1	200 TON
65	BV-PMC/100-2P	1	100 TON
66	BV-PMC/100S	1	100 TON
67	BV-PMMV/100SH	4	100 TON
68	BV-PMCV/100H	3	100 TON
69	BV-1V/200	2	200 TON
70	BV-CV/100	3	100 TON
71	BV-CCV/20P	3	20 TON
72	BV-CCV/15P	3	15 TON
73	BV-C/30SH	1	30 TON



## Tiltable test benches

Page	Model	CLAMP	POWER
76	BOR-M/350	6	350 TON
77	BOR-M/200, BOR-M/60	6	200 / 60 TON
78	BOR-2V/600, BOR-2CV/600	2/3	600 TON
79	BOR-1V/250, BOR-CV/250	2/3	250 TON
80	BOR-1V/200	2	200 TON
81	BOR-M/20P	5/6	20 TON
82	BOR-M/15	5/6	15 TON
83	BOR-5M/20P	5/6	5x20 TON



## Multiple station test benches

Page	Model	CLAMP	POWER
86	BV-3V/450, BV-3V/360, BV-3V/240	2	450/240 TON
87	BV-3V/270L	2	3x90 TON
88	BV-3V/150LP	2	3x50 TON
89	BV-3V/150P	2	3x50 TON
90	BV-3CV/240SH	3	3x80 TON
91	BV-5V/150SH	2	5x30 TON
92	BV-5CV/100P	3	5x20 TON
93	BV-CC3V/60SH	2/7	3x20 TON
94	BV-3CV/60P	3	3x20 TON
95	BV-2CV/60SH	3	2x30 TON
96	BV-3V/30SH	2	3x10 TON
97	BV-5MV/20	4	5x20 TON



### Water immersion GAS test benches

Page	Model	CLAMP	POWER
100	BOI-V/450, BOI-V/250	2	450/250 TON
101	BVI-3CV/60	3	60 TON
102	BVI-PMV/100P	2	100 TON
103	BVI-V/20	2	20 TON



### PSV PRV PVS test benches

Page	Model	CLAMP	POWER
106	BV-M/90SH	5	90 TON
107	BV-M/60P	5	60 TON
108	BVR-M/90	5	90 TON
109	BV-M/60	5	60 TON
110	SKMM-100/PSV	5	10 TON
111	SKMA-100/PSV2	5	20 TON



### CRYOGENIC temperature GAS test benches

Page	Model
114	SKMA-100/CRYO
115	SKMM-50/TC + CRYO VESSEL



### Microleakage Helium test benches

Page	Model	CLAMP	POWER
116	BV-5C-He/10	1	10 TON
117	BV-C-He/30	1	30 TON
117	SKA-100/He		



### Mobile workshops (LAB)

Page	Model	CLAMP	POWER
120	LAB-10 / LAB-20 / LAB-40		
122	BO-2CV/100-LAB	3	100 TON
122	BV-M/60-LAB	5	60 TON
123	BO45-2CV/100-LAB	3	100 TON



### Quarter turn ACTUATOR test benches

Page	Model
126	BPA-250K, BPA-400K
128	BPA-10K
129	BPA-40K, BPA-130K



### Special applications

Page	Model	CLAMP	POWER
132	SKC-100		
132	SKMM-100/FS		
133	SKMM-100/HC		
133	SKMM-100/UHP, SKMM-100/UHP2		
134	SKA-100/GAS		
135	BO-CV/40SA	1	40 TON



### Automatic pressurization SKID

Page	Model
136	SKA-50
136	SKA-100/S
136	SKA-100
136	SKA-250
137	SKA-500
137	SKA-1000
137	SKA-2000
137	SKA-4000



### Semi-Automatic pressurization SKID

Page	Model
138	SKM-100
138	SKM-250
139	SKM-500
139	SKM-1000
139	SKM-2000



### Manual pressurization SKID

Page	Model
140	SKMM-10
140	SKMM-80/GAS
140	SKMM-100
141	SKMM-50/GAS-B2
141	SKMM-100/GAS-B2
141	SKMA-100/GAS-B2
141	SKMM-100/GAS-B4



### Accessories

Page	Model
142	CCMP-200
142	CCMP-80
142	SK-PC/01
142	SK-PC/02
143	CV-1200 / 1700 / 2200 / 2700
143	PLT-600 / PLT-2000
143	VB-1500
143	RE-01
143	BC-01
143	BPR-01
143	ACP-01
143	ACP-02



### Certification Software

Page	Model
144	TestREC

### Protection

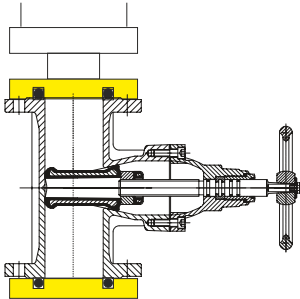
Page	Model
146	Bunker

# Clamping styles

CLAMP  
TYPE  
1

## Pressing:

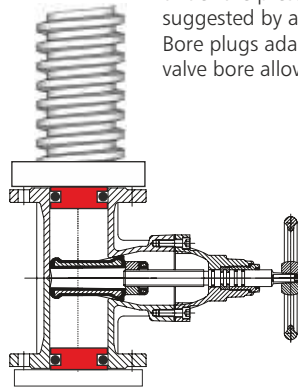
Proportionally controlled or On/Off switch.  
 Reaction against water hydrostatic force inside the valve is made by an hydraulic cylinder. It can be controlled by a proportional oil regulation loop, to the effective water pressure inside the valve or simply with a ON/OFF control to the total amount of strength needed.  
 Proportional press block allows the system to strongly reduce mechanical effort on valve body.  
 Limit of 10% minimum pressing power.



CLAMP  
TYPE  
2

## Inner radial:

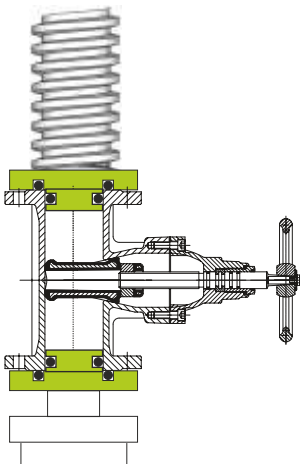
No external forces applied on valve body.  
 The tightness is made by a O-Ring seal that works on the inner side of valve body.  
 Also called "Bore Plugs" style.  
 This clamping style allows the valve to expand itself under the pressure test solicitation. This test style is suggested by all widespread test standards.  
 Bore plugs adaptors need a low roughness grade on valve bore allowing O-Rings to make the tightness.



CLAMP  
TYPE  
3

## Combined:

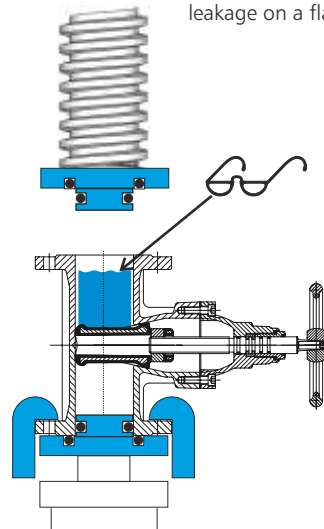
Suitable for all valve termination kinds.  
 It is a combination of style "1" and "2".  
 In one test rig there are both clamping possibilities.  
 Operators can select the best one according to the kind of valve under test.  
 Limit of 10% minimum pressing clamp.

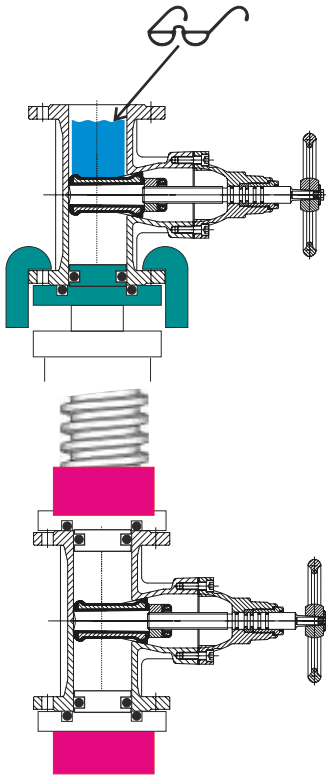


CLAMP  
TYPE  
4

## Universal:

Visual leak test.  
 It has the same blocking ability of clamping style "3", plus claws added to one clamping side.  
 This allows the user to make a visual check of seat leakage on a flanged valve not machined in the bore.





**CLAMP TYPE 5**

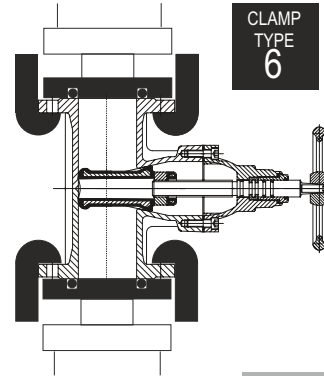
**Claws only:**

Visual leak test. It has the same block ability of tightness type "4", without an upper side closing device. This makes it the most suitable clamping style for 90° angle valves or PSV. It can be used only for flanged valves.

**CLAMP TYPE 7**

**P.E.A. Adaptors:**

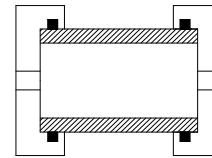
Automatic proportional press clamping. Useful for flange surface with O-Ring seal, developing a natural accurate proportional press clamping applied to a clamping style Nr. 2 test benches or bolts clamping table.



**CLAMP TYPE 6**

**Double Claws:**

Both valve sides are clamped with claws clamping style. It can be used only for flanged valves.



**CLAMP TYPE 8**

**Auto-Adaptive seals**

Special automatic overpressure adaptive seals able to perform perfect tightness on pipes/pubs not perfectly round, with elliptical deformation up to 2% of nominal diameter. Especially suggested for pipes testing rigs.

**Reaction power calculation table**

The table below allows identification of standard nominal test benches reaction power according to valve size and pressure

	½"	1"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"	50"	52"	54"	56"	60"	66"	72"
cl 150	10	10	10	10	10	10	10	20	20	30	30	40	50	100	100	100	150	150	150	200	200	200	250	450	450	450	450	600	600	850	850	1200
cl 300	10	10	10	10	10	10	20	30	40	100	100	100	150	150	250	250	250	450	450	450	450	600	600	850	850	1200	1200	1200	1200	1600	1800	2500
cl 600	10	10	10	10	20	20	30	100	100	150	150	200	250	450	450	450	600	600	850	850	850	1200	1200	1600	1800	2500	2500	2500	2500	3500	4000	
cl 900	10	10	10	20	20	30	50	100	150	200	200	450	450	450	600	600	850	850	1200	1200	1200	1600	1800	2500	2500	2800	3500	3500	3500	4000		
cl 1500	10	10	10	20	40	40	100	150	200	450	450	450	600	850	850	1200	1200	1600	1600	1800	2500	2500	3500	3500	4000							
cl 2500	10	10	10	20	40	50	100	200	450	450	450	600	850	1200	1600	1600	2500	2500	2800	3500	3500	4000										
cl 4500	10	10	20	30	50	100	150	200	450	450	850	1200																				

	100	150	200	250	300	360	400	450	500	550	600	650	700	750	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	
PN 10	30	30	30	30	30	30	30	30	30	50	50	50	100	100	100	100	150	200	200	250	250	450	450	450	450	600	600	600	600	750	750	850	
PN 16	30	30	30	30	30	30	50	50	50	100	100	100	100	150	150	200	200	450	450	450	450	600	600	750	750	850	850	1200	1200	1200	1200	1600	
PN 25	30	30	30	30	30	50	50	100	100	100	150	150	150	200	200	250	450	450	450	450	600	600	850	850	1200	1200	1200	1200	1600	1600	1800	1800	1800
PN 40	30	30	30	30	50	100	100	100	150	150	200	200	250	450	450	450	600	750	750	1200	1200	1600	1600	1600	1600	2000	2000	2500	2500	2800	2800		
PN 63	30	30	50	50	100	100	150	200	200	250	450	450	450	450	600	750	850	1200	1200	1600	1600	2000	2000	2500	2500	3500	3500	4000	4000				
PN 100	30	30	50	100	150	150	200	250	450	450	450	600	600	750	850	1200	1200	1800	1800	2500	2500	3500	3500	4000	4000								
PN 160	30	50	100	150	200	250	450	450	600	600	750	850	1200	1200	1600	1600	2000	2800	2800	4000	4000												
PN 200	30	100	100	150	250	450	450	600	600	750	850	1200	1200	1600	1600	2000	2500	3500	3500														
PN 250	100	100	150	250	450	450	600	600	750	1200	1200	1600	1600	1800	2000	2500	3500																

! \*Note: Showed data has been calculated considering Shell test pressure according to API-6D, nominal bore size, and bore plugs clamping style. For further details please contact our technical department.





BO-2CV/4000

# Horizontal test benches for valves

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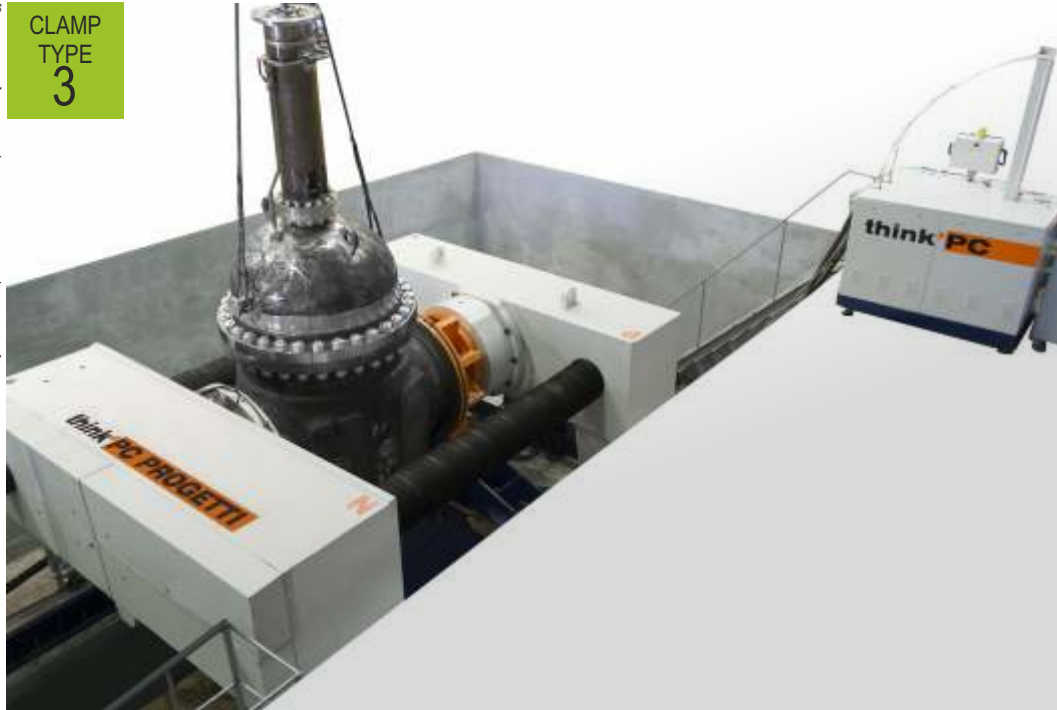


**BO-2CV/4000**

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL  
+ PROPORTIONAL PRESS CONTROL.

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Horizontal test rig with COMBINED clamping style. Both styles are available: Bore plugs & Proportional press clamping. Max reaction power is 4000 TON. Basement is equipped with two special low profile lifters able to support valves up to 120 TON . The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body in case of “bore plugs” clamping style. An hydraulic cylinder installed on the fixed bridge allows tests on flanged valves, using proportional modulation of clamping effort. This prerogatives makes it compliant to the most widespread international test standards. A water vessel is installed in the basement as water reservoir for test procedures. The rig is controlled by a **SKA-1000 / SKM-1000** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **4000 TON** (10% minimum press clamping)  
(See working limits table)
- Length max : 3800 mm
- Length min : 0 mm
- Column inner clearance : 2800 mm
- Flow axes height : 2500 mm
- Basement water vessel : optional
- Lifters : 2x30 TON (standard asset)
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined
- Dimensions (mech) : 8050 (L) x 4330 (D) x 3245 (H) mm



★ Working limits for SHELL TEST with **INNER RADIAL SEAL** and **PROPORTIONAL PRESS CLAMPING**

ANSI-150	DN	20"	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"	50"	52"	56"	60"	64"	68"	72"
TON																			
ANSI-300	TON																		
ANSI-600	TON																		
ANSI-900	TON																		
ANSI-1500	TON																		
ANSI-2500	TON																		

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2V/2800**

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



CLAMP  
TYPE  
**2**

Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement, as water reservoir for test procedures. The rig is controlled by a **SKA-1000** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **2800 TON**  
(See working limits table)
- Length max : 3600 mm
- Length min : 600 mm
- Column inner clearance : 2400 mm
- Flow axes height : 2000 mm
- Basement water vessel : optional
- Lifters : 2x30 TON
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 5900 (L) x 3560 (D) x 2950 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	20"	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"	56"	60"
ANSI-150	TON													
ANSI-300	TON													
ANSI-600	TON													
ANSI-900	TON													
ANSI-1500	TON													
ANSI-2500	TON													

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2V/2500**

**DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)**



CLAMP  
TYPE  
**2**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. The rig is controlled by a "SKA or SKM class" pressurization skid; to have more information about it please consult dedicated technical data sheets. A water vessel is installed in the basement, as water reservoir for test procedures. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Clamp 3 and Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **2500 TON**  
(See working limits table)
- Length max : 5400 mm
- Length min : 800 mm
- Column inner clearance : 2500 mm
- Flow axes height : 2200 mm
- Basement water vessel : optional
- Lifters : 2x30 TON
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 7800 (L) x 3610 (D) x 2910 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

DN	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"	56"
ANSI-150 TON											
ANSI-300 TON											
ANSI-600 TON											
ANSI-900 TON											
ANSI-1500 TON											
ANSI-2500 TON											

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2V/1800L**

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

CLAMP  
TYPE  
**2**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement as water reservoir for test procedures.

The rig is controlled by a **SKA 1000** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Clamp 3 and Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **1800 TON**  
(See working limits table)
- Length max : 4000 mm
- Length min : 600 mm
- Column inner clearance : 2400 mm
- Flow axes height : 2100 mm
- Basement water vessel : 2900 Liters ca.
- Lifters : 2x30 TON
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 6812 (L) x 3580 (D) x 2661 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

DN	18"	20"	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"	56"
ANSI-150 TON													
ANSI-300 TON													
ANSI-600 TON													
ANSI-900 TON													
ANSI-1500 TON													
ANSI-2500 TON													

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2V/1600**  
**BO-2CV/1600**

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS) or  
COMBINED CLAMPING



Horizontal test rig with inner radial seal or combined clamping style.  
The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.  
A water vessel is installed in the basement as water reservoir for test procedures.  
The rig is controlled by a "SKM or SKA class" pressurization skid; to have more information about it please consult dedicated technical data sheets.  
The rig could be completed with several options and accessories, please contact our sales office to have more information.

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP TYPE  
**2**

CLAMP TYPE  
**3**

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

		<b>BO-2V/1600</b> <span style="background-color: red; color: white; padding: 2px;">2</span>	<b>BO-2CV/1600</b> <span style="background-color: green; color: white; padding: 2px;">3</span>
Reaction force	:	<b>1600 TON</b> (See working limits table)	<b>1600 TON</b> (10% minimum press clamping) (See working limits table)
Length max	:	4000 mm	3200 mm
Length min	:	600 mm	0 mm
Column inner clearance	:	2000 mm	2000 mm
Flow axes height	:	1900 mm	1900 mm
Basement water vessel	:	optional	optional
Lifters	:	2x20 TON	2x20 TON
Terminations allowed	:	BW, SW, RF, RJ	BW, SW, RF, RJ
Clamping style	:	Type 2 – Inner radial	Type 3 - Combined
Dimensions (mech)	:	6183 (L) x 3080 (D) x 2522 (H) mm	6183 (L) x 3080 (D) x 2522 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"
ANSI-150	TON													
ANSI-300	TON													
ANSI-600	TON													
ANSI-900	TON													
ANSI-1500	TON													
ANSI-2500	TON													

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D, added by 80 mm in case of press clamping. For further details please contact our technical department.



**BO-2V/1200**  
**BO-2CV/1200**

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

CLAMP  
TYPE  
**2**

CLAMP  
TYPE  
**3**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. A water vessel is installed in the basement as water reservoir for test procedures. The rig is controlled by a **SKA-500** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

		<b>BO-2V/1200</b> <b>2</b>	<b>BO-2CV/1200</b> <b>3</b>
Reaction force	:	<b>1200 TON</b> (See working limits table)	<b>1200 TON</b> (10% minimum press clamping) (See working limits table)
Length max	:	4550 mm	3500 mm
Length min	:	200 mm	0 mm
Column inner clearance	:	1900 mm	1900 mm
Flow axes height	:	1750 mm	1750 mm
Lifters	:	2x20 TON	2x20 TON
Basement water vessel	:	2000 Liters ca.	2000 Liters ca.
Terminations allowed	:	BW, SW, RF, RJ	BW, SW, RF, RJ
Clamping style	:	Type 2 – Inner radial	Type 3 – Combined
Dimensions (mech)	:	5100 (L) x 2650 (D) x 1760 (H) mm	5100 (L) x 2650 (D) x 1760 (H) mm



Pit assembly option.

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	40"
ANSI-150	TON																
ANSI-300	TON																
ANSI-600	TON																
ANSI-900	TON																
ANSI-1500	TON																
ANSI-2500	TON																

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2CV/750**  
**BO-2CV/750L**

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL+  
PROPORTIONAL PRESS CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement as water reservoir for test procedures.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

	<b>BO-2CV/750</b>	<b>BO-2CV/750L</b>
Reaction force	: <b>750 TON</b> (10% minimum press clamping)	<b>750 TON</b> (10% minimum press clamping)
Lenght max	: 1800 mm	3000 mm
Lenght min	: 150 mm	150 mm
Column inner clearance	: 1200 mm	1200 mm
Flow axes height	: 1200 mm	1200 mm
Basement water vessel	: 900 Liters	1200 Liters
Lifters	: 2 x 10 TON	2 x 10 TON
Termination allowed	: BW, SW, RF, RJ	BW, SW, RF, RJ
Clamping style	: Type 3 - Combined	Type 3 - Combined
Dimensions (mech)	: 4350 (L) x 2000 (D) x 2000 (H) mm	5550 (L) x 2000 (D) x 2000 (H) mm



Pressing cylinder with proportional control.

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

ANSI-150 TON	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"
ANSI-300 TON													
ANSI-600 TON													
ANSI-900 TON													
ANSI-1500 TON													
ANSI-2500 TON													

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. Press clamping style limits are based on bore size increased by 50 mm. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.





**BO-2V/600**  
**BO-2V/600L**

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**2**



Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement as water reservoir for test procedures.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

	<b>BO-2V/600</b>	<b>BO-2V/600L</b>
Reaction force	: <b>600 TON</b> (See working limits table)	: <b>600 TON</b> (See working limits table)
Length max	: 2000 mm	: 3200 mm
Length min	: 250 mm	: 250 mm
Column inner clearance	: 1350 mm	: 1500 mm
Flow axes height	: 1500 mm	: 1500 mm
Basement water vessel	: 1100 liters	: 2500 liters
Lifters	: 1x10 TON	: 2x10 TON
Terminations allowed	: BW, SW, RF, RJ	: BW, SW, RF, RJ
Clamping style	: Type 2 – Inner radial	: Type 2 – Inner radial
Dimensions (mech)	: 3600 (L) x 2110 (D) x 2000 (H) mm	: 4900 (L) x 2260 (D) x 2600 (H) mm



Pit assembly option.



**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"
ANSI-150	TON												
ANSI-300	TON												
ANSI-600	TON												
ANSI-900	TON												
ANSI-1500	TON												
ANSI-2500	TON												
ANSI-4500	TON												

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2CV/500**

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL+  
PROPORTIONAL PRESS CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities.

The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement as water reservoir for test procedures.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



Bunker asset option.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **500 TON** (10% minimum press clamping)  
(See working limits table)
- Length max : 1300 mm
- Length min : 0 mm
- Column inner clearance : 1060
- Flow axes height : 1150 mm from soil
- Basement water vessel : 470 Litres
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined  
Inner radial clamping & Pressing clamping with Proportional control.
- Dimensions (mech) : 3270 (L) x 1650 (D) x 1400 (H) mm (Mechanical structure)

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150 TON									
ANSI-300 TON									
ANSI-600 TON									
ANSI-900 TON									
ANSI-1500 TON									
ANSI-2500 TON									

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. Press clamping style limits are based on bore size increased by 50 mm. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.



**BO-2V/450**  
**BO-2V/450SH**      DOUBLE SCREWED COLUMN  
 INNER RADIAL SEAL (BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
 TYPE  
**2**



**BO-2V/450SH**

Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. A water vessel is installed in the basement as water reservoir for test procedures. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Lifter trolleys and Safety perimetric protection available as option  
 Bunker or Pit assembly asset available as option.

- Reaction force : **450 TON**  
(See working limits table)
- Length max : 2000 mm
- Length min : 0 mm
- Column inner clearance : 1150 mm
- Flow axes height : 1150 mm
- Basement water vessel : 400 Liters
- Screw bellows : See Option
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 3680 (L) x 1740 (D) x 1623 (H) mm  
(Mechanical stand only)



**BO-2V/450SH**



**BO-2V/450**

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									
ANSI-4500	TON									

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2V/250**

**DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL  
(BORE PLUGS)**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

**CLAMP  
TYPE  
2**



Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement as water reservoir for test procedures.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option. Bunker or Pit assembly asset available as option.

- Reaction force : **250 TON**  
(See working limits table)
- Length max : 1300 mm
- Length min : 50 mm
- Column inner clearance : 1100 mm
- Flow axes height : 1100 mm
- Basement water vessel : 400 Liters
- Lifter : See Option
- Screw dust protection : See Option
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 2650 (L) x 1310 (D) x 1130 (H) mm  
(Mechanical stand)



**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150 TON									
ANSI-300 TON									
ANSI-600 TON									
ANSI-900 TON									
ANSI-1500 TON									
ANSI-2500 TON									
ANSI-4500 TON									

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2CV/250**

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL+  
PROPORTIONAL PRESS CONTROL

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities.

The mobile reaction bridge is moved by two screwed columns that assure the complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **250 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 1500 mm
- Valve length min : 0 mm
- Column inner clearance : 1100 mm
- Flow axes height : 950 mm from the ground
- Basement water vessel : 370 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined Inner radial clamping  
& Pressing clamping with Proportional control.
- Dimensions (mech) : 2880 (L) x 1310 (D) x 1400 (H) mm  
(Mechanical structure)

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150	TON												
ANSI-300	TON												
ANSI-600	TON												
ANSI-900	TON												
ANSI-1500	TON												
ANSI-2500	TON												

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. Press clamping style limits are based on bore size increased by 50 mm. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.



**BO-2V/150**

**DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. A water vessel is installed in the basement as water reservoir for test procedures. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **150 TON**  
(See working limits table)
- Length max : 1300 mm
- Length min : 50 mm
- Column inner clearance : 900 mm
- Flow axes height : 990 mm
- Basement water vessel : 200 Liters
- Lifter : Available as option
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 2545 (L) x 1110 (D) x 1170 (H) mm  
(Mechanical stand)

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

ANSI-150	DN	1/2"	1"	2"	3"	4"	5"	6"	8"	10"	12"
TON											
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										
ANSI-4500	TON										

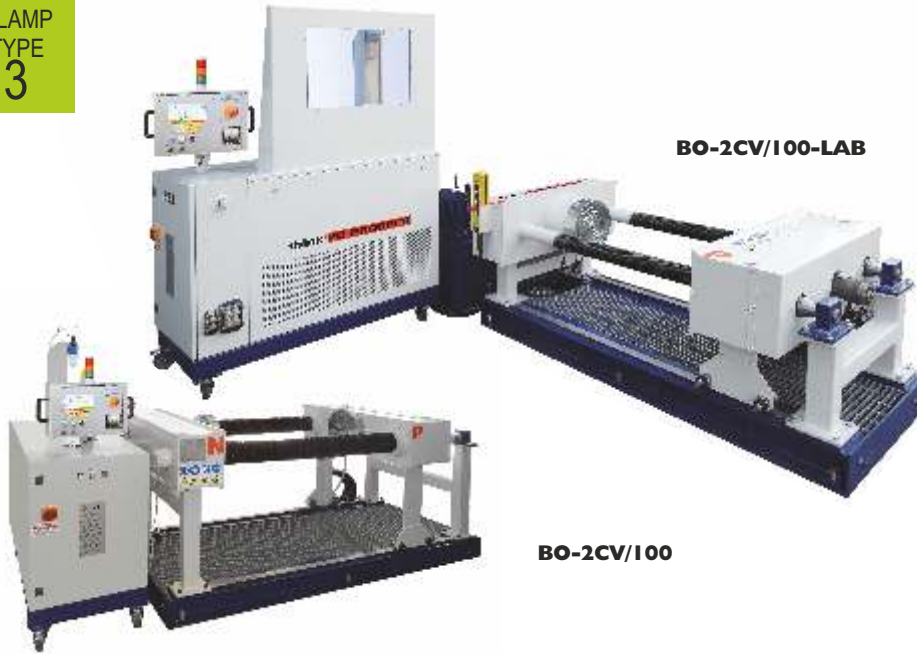
\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO-2CV/100**  
**BO-2CV/100-LAB**

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL+  
PROPORTIONAL PRESS CONTROL

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities.

The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

	<b>BO-2CV/100</b>	<b>BO-2CV/100-LAB</b>
Reaction force	: <b>100 TON</b> (See working limits table)	: <b>100 TON</b> (10% minimum press clamping) (See working limits table)
Valve length max	: 1300 mm	: 1300 mm
Valve length min	: 0 mm	: 0 mm
Column inner clearance	: 900 mm	: 900 mm
Flow axes height	: 1140 mm from the ground	: 650 mm from the ground
Basement water vessel	: 170 Liters	: 170 Liters
Terminations allowed	: BW, SW, RF, RJ	: BW, SW, RF, RJ
Clamping style	: Type 3 – Combined Inner radial clamping & Press clamping with Proportional control.	: Type 3 – Combined Inner radial clamping & Press clamping with Proportional control.
Dimensions (mech)	: 2600 (L) x 1290 (D) x 1400 (H) mm (Mechanical structure)	: 2600 (L) x 1290 (D) x 910 (H) mm (Mechanical structure)

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"
ANSI-150	TON										
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. Press clamping style limits are based on bore size increased by 50 mm. For more accurate informations please contact our technical department or consult the instructions book delivered along the rig.



**BO-C/90SH**

**PRESS CLAMPING W/PROPORTIONAL PRESSING CONTROL**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**1**



Horizontal test bench with proportional press clamping. Pressing force is automatically set upon valve size and class and it is even proportionally modulated according to test rising pressure. The valve is inserted into a fairing to ensure the best safety level for operator, at the bottom side there are auto centering "V" support that let the operator center perfectly the valve flow axes with the test bench. This Rig shape makes it perfect for BUTTERFLY valves testing. Test process components are integrated into the rig fairing. Test bench is controlled by a PLC and LCD for automatic test performing.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **90 TON**  
(See working limits table)
- Length max : 100 mm
- Length min : 40 mm
- Max flange diameter : 500 mm
- Flow axes height : 990 mm
- Loading height from the ground : 650 mm
- Terminations allowed : RF
- Clamping style : Type 1 – Proportional press
- Dimensions (mech) : 1500 (L) x 700 (D) x 1300 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

DN	4"	6"	8"	10"	12"
ANSI-150 TON					
ANSI-300 TON					
ANSI-600 TON					
ANSI-900 TON					

(\*)Note: Showed data has been calculated considering SHELL TEST pressure and nominal minimum bore size ANSI + 50mm (LUG Valves). For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.





**BO-CC/40**

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

CLAMP  
TYPE  
**1**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Horizontal test rig with press clamping facilities. This particular “C” shape allows the accommodation of valves completed by a “Control panel” that may increase valves shape dimension in large terms (i.e. Control valves) An hydraulic cylinder makes press clamping with or without proportional control. **SKM** or **SKA** class pressurization skid control the rig. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force min/max : **4/40 TON** (10% minimum press clamping)  
(See working limits table)
- Length max : 850 mm
- Length min : 0 mm
- Flow axes height : 1180 mm
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Press Clamping
- Dimensions (mech) : 3000 (L) x 300/700 (D) x 1350 (H) mm



**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	1/2"	1"	2"	3"	4"	6"	8"	10"	12"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

\*Note: Indicated values has been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. Press clamping style limits are based on bore size increased by 50 mm. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.



**BO30-2V/850**  
**BO30-2CV/850**  
 with 30° column disposal

DOUBLE SCREWED COLUMN,  
 INNER RADIAL SEAL (BORE PLUGS)



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. The rig is controlled by a **SKA-100** class pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



Bridge stair option.



Cylinder aid for unloading of valve.



Lifter trolleys

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

		<b>BO30-2V/850</b> <b>2</b>	<b>BO30-2CV/850</b> <b>3</b>
Reaction force	:	<b>850 TON</b> (See working limits table)	<b>850 TON</b> (See working limits table)
Valve length max	:	2890 mm	2200 mm
Valve length min	:	400 mm	400 mm
Column inner clearance	:	1580 mm	1580 mm
Flow axes height	:	1230 mm	1230 mm
Lifters	:	2x10 TON	2x10 TON
Basement water vessel	:	1600 Liters	1600 Liters
Terminations allowed	:	BW, SW, RF, RJ	BW, SW, RF, RJ
Clamping style	:	Type 2 – Bore plugs	Type 3 – Combined
Dimensions (mech)	:	5140 (L) x 1974 (D) x 1984 (H) mm	5140 (L) x 1974 (D) x 1984 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

DN	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"
ANSI-150 TON															
ANSI-300 TON															
ANSI-600 TON															
ANSI-900 TON															
ANSI-1500 TON															
ANSI-2500 TON															
ANSI-4500 TON															

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO30-2CV/750**  
with 30° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL+  
PROPORTIONAL PRESS CONTROL

CLAMP  
TYPE  
**3**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. Designed to test control valves up to 32" according to FCI 70-2 and DIN EN 12266 standards. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards. A water vessel is installed in the basement as water reservoir for test procedures. The rig is controlled by a **SKA-100** pressurization skid with control valve asset devices. Please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force	:	<b>750 TON</b> (10% minimum press clamping) (See working limits table)
Valve length max	:	2200 mm
Valve length min	:	0 mm
Column inner clearance	:	1500
Flow axes height	:	1350 mm from soil
Basement water vessel	:	950 Liters
Lifters	:	2x10 TON
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 3 – Combined Inner radial clamping & Pressing clamping with Proportional control.
Dimensions (mech)	:	4630 (L) x 2300 (D) x 2170 (H) mm



Water jets sliding protection panels.

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"
ANSI-150	TON													
ANSI-300	TON													
ANSI-600	TON													
ANSI-900	TON													
ANSI-1500	TON													
ANSI-2500	TON													

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO30-2CV/500**  
with 30° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL +  
PROPORTIONAL PRESS CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards. Complete flow meter sets could be installed (see option) to perform seat leakage tests on control valves. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **500 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 1760 mm
- Valve length min : 0 mm
- Column inner clearance : 1160
- Flow axes height : 1000 mm
- Basement water vessel : 470 Liters
- Lifters : 2x5 TON
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined  
Inner radial clamping & Pressing clamping with Proportional control.
- Dimensions (mech) : 3441 (L) x 1817 (D) x 1980 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO30-2CV/250L**  
with 30° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL +  
PROPORTIONAL PRESS CONTROL

CLAMP  
TYPE  
**3**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

In the basement a water vessel is installed as water reservoir for test procedures.

Complete flow meter sets could be installed (see option) to perform seat leakage tests on control valves.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction Power	:	<b>250 TON</b> (10% minimum press clamping) (See working limits table)
Columns disposal	:	30°
Valve lenght max	:	1600 mm
Valve lenght min	:	0 mm
Column clearance	:	1150 mm
Flow axes height	:	950 mm
Basement water vessel	:	400 Liters
Lifters	:	2x5 TON
Valve kind	:	BW, SW, RF, RJ
Clamping styles	:	Inner radial & Pressing – Combined
Dimensions (mech)	:	3375 (L) x 1625 (D) x 1627 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"
ANSI-150	TON													
ANSI-300	TON													
ANSI-600	TON													
ANSI-900	TON													
ANSI-1500	TON													
ANSI-2500	TON													

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO30-CV/50P**  
with 30° column disposal

SINGLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING  
AUTOMATIC OPENING FRONTAL PROTECTION  
CONTROL VALVE ASSET

Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by one screwed column that assures complete absence of external forces on valves body and a hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards. A spacer of 600mm is placed on the fixed bridge side to accommodate large actuators. The unit has a control panel for control of pneumatic / electrical actuators. A water vessel is installed in the basement as water reservoir for test procedures. Test process is controlled by electronic PLC & LCD touch screen. Test data can be printed out on 24cIn thermal printer directly in the testing area or it can be downloaded with serial connection (standard) to Windows based PC with TestREC certification software. Operator safety is granted by a front protection with automatic opening.

CLAMP TYPE 3



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **50 TON** (10% minimum press clamping)  
(see working limits table)
- Valve length max : 620 mm
- Valve length min : 0 mm
- Columns inner clearance : 590 mm
- Flow axes height : 885 mm
- Basement water vessel : 100 Liters
- Termination allowed : RF, RTJ, BW, SW
- Clamping style : Type 3 - combined clamping
- Clamping force control : On/off & proportional (option)
- Reference standards : ISO, DIN, API, ANSI, ASTM, FCI, BS (Other on request).
- Filling flow : 50 Liters/min
- Vacuum pump : 36m<sup>3</sup>/h (Option)
- Standard flow meter : See table (other flowmeter asset on request)
- Max pressure : 700 bar (water) - 6 bar (AIR)
- Pneumatic supply : 7 bar @ 2000 NI/min
- Electric supply : 3PH + T, 400V@50Hz, 5KW (other on request)
- Dimensions (mech) : 3670 (L) x 600 (D) x 1700 (H) mm

TEST KIND	Fluid	MEASURE TYPE	INSTRUMENT*
Cl. II to IV Seat leakage	WATER	Digital flow meters	Turbine flow meters: 300 - 3000 ml/min res. 2.5 cc 20L
Cl. IV Seat leakage	AIR	Digital flow meters	Mass flow meters: 1) 0,1 SLPM 2) 1 SLPM 3) 10 SLPM 4) 100 SLPM
Cl. V Seat leakage test	WATER	Water column digital flow meter	Digital water column Max height: 700 mm Resolution: 1mm (0.01 ml)
Cl. VI Seat leakage test	AIR	Bubbles counter	Digital bubbles counter: Max 3 bubbles/sec

\*Other on request

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

DN	1/2"	1"	2"	3"	4"	5"	6"	8"	10"	12"
ANSI-150 TON										
ANSI-300 TON										
ANSI-600 TON										
ANSI-900 TON										
ANSI-1500 TON										
ANSI-2500 TON										



(\*)Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size + 30mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO30-CV/40P**  
with 30° column disposal

SINGLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING  
AUTOMATIC OPENING FRONTAL PROTECTION  
SHUT-OFF VALVE ASSET

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by one screwed column that assures complete absence of external forces on valves body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement as water reservoir for test procedures.

Test process is controlled by electronic PLC & LCD touch screen. Test data can be printed out on 24cm thermal printer directly in the testing area or it can be downloaded with serial connection (standard) to Windows based PC with TestREC certification software. Operator safety is granted by a front protection with automatic opening.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force	:	<b>40 TON</b> (10% minimum press clamping) (see working limits table)
Valve length max	:	650 mm
Valve length min	:	50 mm
Columns inner clearance	:	460 mm
Flow axes height	:	830 mm
Basement water vessel	:	100 Liters
Terminations allowed	:	RF, RTJ, BW, SW
Clamping style	:	Type 3 - combined clamping
Clamping force control	:	On/off & proportional (option)
Filling flow	:	50 Liters/min
Vacuum pump	:	36m <sup>3</sup> /h (Option)
Standard flow meter	:	See table
Max pressure	:	700 - 1380 - 2000 - 4000 bar (water) 450 - 700 bar (gas)
Pneumatic supply	:	6.5 bar @ 1100 NI/min
Electric supply	:	3PH + T, 400V@50Hz, 5KW (other on request)
Dimensions (mech)	:	2810 (L) x 600 (D) x 1670 (H) mm

TEST KIND	Fluid	MEASURE TYPE	INSTRUMENT*
Cl. V Seat leakage test	WATER	Water column digital flow meter	Digital water column Max height: 700 mm Resolution: 1mm (0.01 ml)
Cl. VI Seat leakage test	AIR	Bubbles counter	Digital bubbles counter: Max 3 bubbles/sec

\*Other on request

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1/2"	1"	2"	3"	4"	5"	6"	8"
ANSI-150	TON								
ANSI-300	TON								
ANSI-600	TON								
ANSI-900	TON								
ANSI-1500	TON								
ANSI-2500	TON								
ANSI-4500	TON								

(\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size + 30mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO30-1V/40SH**  
**BO30-2CV/40SH**

BORE PLUGS OR COMBINED CLAMPING STYLES AVAILABLE.  
FULL PROTECTION SHIELD DOUBLE ACCESS SIDE

with 30° column disposal



Horizontal test benches available in two different clamping styles: “Bore plugs” or “combined”. The mobile reaction bridge is moved by one screwed column that assures the complete absence of external forces on valve body during tests. This prerogative makes it compliant to the most widespread international test standards (bore plugs). While a proportionally controlled hydraulic cylinder makes it suitable even for face-to-face sealing; it reduces mechanical effort on valve body to minimum terms. A BULLET PROOF full surrounding protection is foreseen to perform high pressure gas/water tests in very safe conditions. Door opening is conditioned by visual inspection rules (automatic pressure reducing before inspection) and a normal pressure discharge procedure. In the basement a water vessel is installed as water reservoir for test procedures. The test process is controlled by an electronic PLC & LCD touch screen along with a certification software TestREC® fully interconnected to a company LAN network. Full LAN test bench configuration & data collection is granted. Double control AUTO / MAN software is foreseen to give maximum flexibility to operators.

**!** Note: Safety perimetric protection available as option  
Bunker or Pit assembly asset available as option.

	<b>BO30-1V/40SH</b> <b>2</b>	<b>BO30-2CV/40SH</b> <b>3</b>
Reaction force	: <b>40 TON</b> (see working limits table)	<b>40 TON</b> (10% minimum press clamping) (see working limits table)
Length min - max	: 50 - 680 mm	0 - 550 mm
Max valve height	: 900 mm	900 mm
Columns inner clearance	: 550 mm	550 mm
Flow axes height	: 830 mm	830 mm
Basement water vessel	: 100 Liters	100 Liters
Termination allowed	: RF, RTJ (bore machined), BW, SW	RF, RTJ, BW, SW
Clamping style	: Type 2 – bore plugs	Type 3 – combined
Reference standards	: ISO, DIN, API, ANSI, ASTM, FCI, BS (Other on request).	ISO, DIN, API, ANSI, ASTM, FCI, BS (Other on request).
Filling Flow	: 70 Liters/min	70 Liters/min
Vacuum pump	: 40m /h (Option)	40m /h (Option)
Standard flow meter	: Digital Bubbles Counter & Digital water column	Digital Bubbles Counter & Digital water column
Max pressure	: 4000 bar (water) - 1050 bar (gas)	4000 bar (water) - 1050 bar (gas)
Pneumatic supply	: 6.5 bar @ 1100 NI/min	6.5 bar @ 1100 NI/min
Electric supply	: 3PH + T, 400V@50Hz, 5KW (other on request)	3PH + T, 400V@50Hz, 5KW (other on request)
Dimensions (mech)	: 3500 (L) x 1100 (D) x 1600 (H) mm	3500 (L) x 1100 (D) x 1600 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

DN	1/2"	1"	2"	3"	4"	5"	6"	8"
ANSI-150 TON								
ANSI-300 TON								
ANSI-600 TON								
ANSI-900 TON								
ANSI-1500 TON								
ANSI-2500 TON								
ANSI-4500 TON								



(\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size + 30mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)





**BO45-2CV/3000**  
with 45° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING  
INNER RADIAL SEAL + PROPORTIONAL PRESS CONTROL

CLAMP  
TYPE  
**3**



Test rig for valves with combined clamping style. Both pressing & bore plugs sealing styles are available. It has two reaction columns to allow maximum pipe length. The reaction bridge is moved by a hydraulic command. Valve loading is made vertically with over head travelling crane and final positioning is made by two lifters. In the basement there is a water vessel protected by a step resistant grid. Clamping is controlled through a pressurization skid with proportional clamping to ensure minimum mechanical effort on valve casting. The rig is controlled by a **SKA-2000** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **3000 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 6400 mm
- Valve length min : 1750 mm
- Column inner clearance : 2900 mm
- Flow axes height : 2800 mm
- Basement water vessel : 5000 Liters
- Lifters : 2x30 TON
- Clamping style : Type 3: Combined
- Dimensions (mech) : 11500 (L) x 4500 (D) x 5500 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	20"	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"	56"	60"	66"
ANSI-150	TON														
ANSI-300	TON														
ANSI-600	TON														
ANSI-900	TON														
ANSI-1500	TON														
ANSI-2500	TON														

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 80mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.



**BO45-2CV/2000** DOUBLE SCREWED COLUMN + CYLINDER  
 with 45° column disposal COMBINED CLAMPING  
 INNER RADIAL SEAL+PROPORTIONAL PRESS CONTROL



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valves body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards. A water vessel is installed in the basement as water reservoir for test procedures. Complete flow meter sets could be installed (see option) to perform seat leakage tests on control valves. The rig is controlled by a **SKA-1000** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **2000 TON** (10% minimum press clamping)  
(see working limits table)
- Valve length max : 2900 mm
- Valve length min : 0 mm
- Column inner clearance : 2100 mm
- Flow axes height : 2070 mm from the ground - 45° inclination from the ground
- Basement water vessel : 2000 Liters
- Lifters : 2x20 TON
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined  
Inner radial clamping & Press clamping with Proportional control.
- Dimensions (mech) : 6000 (L) x 3000 (D) x 3570 (H) mm (Mechanical structure)

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	40"	42"	48"
ANSI-150	TON															
ANSI-300	TON															
ANSI-600	TON															
ANSI-900	TON															
ANSI-1500	TON															
ANSI-2500	TON															

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 80mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO45-2V/1600**  
with 45° column disposal

DOUBLE SCREWED COLUMN,  
INNER RADIAL SEAL (BORE PLUGS)

CLAMP  
TYPE  
**2**



Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

The rig is controlled by a **SKA-500** class pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information. Reaction bridges can be prepared for articulated cameras insertion and for seat inspection during testing.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **1600 TON**
- Valve Length max : 2350 mm
- Valve Length min : 200 mm
- Column inner clearance : 1600 mm
- Flow axes height : 1900 mm
- Basement water vessel : 1500 Liters
- Lifters : 2x20 TON
- Terminations allowed : RF, RJ, BW, SW
- Clamping style : Type 2 – Bore Plugs
- Dimensions (mech) : 4790 (L) x 2290 (D) x 3125 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

DN	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"	
ANSI-150 TON																				
ANSI-300 TON																				
ANSI-600 TON																				
ANSI-900 TON																				
ANSI-1500 TON																				
ANSI-2500 TON																				

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO45-2V/850**  
with 45° column disposal

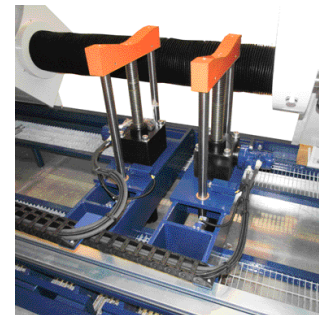
DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**2**



Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. The 45° columns disposal allows vertical loading of valves to be tested with a crane or with a horizontal loading fork lifter. Besides, the vertical loading height is reduced. In the basement a water vessel is installed as water reservoir for test procedures. The rig is controlled by a **SKM** or **SKA** class pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **850 TON** (See working limits table)
- Valve length max : 3000 mm
- Valve length min : 200 mm
- Column inner clearance : 1300 mm
- Flow axes height : 900 mm
- Basement water vessel : 1100 Liters
- Lifter : See Option
- Screw dust protection : See Option
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Reference standard : ISO, DIN, API, ANSI, ASTM, FCI, BS (Other on request).
- Electric supply : 3PH + T, 380V@50Hz, 7,5KW
- Dimensions (mech) : 4700 (L) x 2340 (D) x 2300 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

ANSI-150	TON	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	32"	34"	36"
ANSI-300	TON														
ANSI-600	TON														
ANSI-900	TON														
ANSI-1500	TON														
ANSI-2500	TON														
ANSI-4500	TON														

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO45-2V/600**  
with 45° column disposal

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL

CLAMP  
TYPE  
**2**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimeter protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **600 TON** (See working limits table)
- Valve length max : 2500 mm
- Valve length min : 600 mm
- Column inner clearance : 1300 mm
- Flow axes height : 1400 mm
- Basement water vessel : 1000 Liters
- Lifter : See Option
- Screw dust protection : See Option
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 4200 (L) x 2340 (D) x 2300 (H) mm

Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

The 45° columns disposal, allows vertical loading of valves to be tested with a crane or with a horizontal loading fork lifter. Besides, the vertical loading height is reduced.

In the basement a water vessel is installed as water reservoir for test procedures.

The rig is controlled by a **SKA-100** or **SKM-100** class pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	32"
ANSI-150	TON												
ANSI-300	TON												
ANSI-600	TON												
ANSI-900	TON												
ANSI-1500	TON												
ANSI-2500	TON												
ANSI-4500	TON												

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BO45-2CV/500**  
with 45° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING  
INNER RADIAL SEAL+ PROPORTIONAL PRESS CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards. In the basement a water vessel is installed as water reservoir for test procedures. Complete flow meter sets could be installed (see option) to perform seat leakage tests on control valves. The rig is controlled by a **SKA-500** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **500 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 1760 mm
- Valve length min : 0 mm
- Column inner clearance : 1160 mm
- Flow axes height : 1000 mm from the ground
- Basement water vessel : 470 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined  
Inner radial clamping & Press clamping with Proportional control.
- Dimensions (mech) : 3450 (L) x 2000 (D) x 2000 (H) mm  
(Mechanical structure)

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

(\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO45-2CV/400**  
with 45° column disposal

DOUBLE SCREWED COLUMN  
INNER RADIAL SEAL

CLAMP  
TYPE  
**3**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Horizontal test rig with combined clamping style: inner radial seal + press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

A water vessel is installed in the basement as water reservoir for test procedures. Complete flow meter sets could be installed (see option) to perform seat leakage tests on control valves.

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **400 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 2000 mm
- Valve length min : 0 mm
- Column inner clearance : 1400 mm
- Flow axes height : 1320 mm from the ground
- Basement water vessel : 900 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined  
Inner radial clamping & Press clamping with Proportional control.
- Dimensions (mech) : 3450 (L) x 2000 (D) x 2000 (H) mm  
(Mechanical structure)

\*Working limits for SHELL TEST with **INNER RADIAL SEAL** and **PROPORTIONAL PRESS CLAMPING**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									



(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BO45-2CV/250**  
with 45° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING  
INNER RADIAL SEAL+PROPORTIONAL PRESS CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and proportional press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force	:	<b>250 TON</b> (10% minimum press clamping)
Length max	:	1750 mm
Length min	:	0 mm
Column inner clearance	:	1100 mm
Flow axis height	:	980 mm
Basement water vessel	:	400 Liters ca.
Lifter	:	Optional
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 3 – Combined clamping
Dimensions (mech)	:	3500 (L) x 1300 (D) x 1600 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
ANSI-150	TON														
ANSI-300	TON														
ANSI-600	TON														
ANSI-900	TON														
ANSI-1500	TON														
ANSI-2500	TON														

(\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig





**BO45-2CV/100**  
with 45° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING  
INNER RADIAL SEAL + PROPORTIONAL PRESS CONTROL

CLAMP  
TYPE  
**3**



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make pressing clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

The rig is controlled by **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option  
Bunker or Pit assembly asset available as option.

- Reaction force : **100 TON** (10% minimum press clamping)
- Length max : 1300 mm
- Length min : 0 mm
- Column inner clearance : 900 mm
- Flow axis height : 700 / 1000 mm
- Basement water vessel : 170 Liters ca.
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined
- Dimensions (mech) : 2250 (L) x 1016 (D) x 1200 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
ANSI-150 TON										
ANSI-300 TON										
ANSI-600 TON										
ANSI-900 TON										
ANSI-1500 TON										
ANSI-2500 TON										

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



BOT-2CSV/3000

# Test benches for pipes

**think'PC PROGETTI**



**BOT-2CSV/3000** DOUBLE SECTORIZED COLUMNS  
EXTERNAL RADIAL  
AUTOADAPTIVE SEALS

CLAMP  
TYPE  
**8**

**56"**

Up to  
**12.5m**  
LENGTH



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Test rigs for pipes with clamping style Nr. 2 "Inner/outer seal" or Nr. 8 "overpressure auto-adaptive seals" for elliptical shape error. Reaction bridges are connected by sector columns that allow to set up maximum pipe length. The fine adjustment on pipes is performed by a screwed column. The right side reaction bridge is able to run on the entire columns length to cover a wide range of pipes length measures, as described in the technical table below. Pipe loading is performed by crane from top side, while Nr. 4 hydraulic "V" shape lifters will support it for entire test duration and are able to center the alignment on seals heads. The basement includes a water vessel with an evaporation limit device. The test bench does not need any foundations preparation. The rig is controlled by SKA class pressurization skid up to 4000 Liters/min water filling ability. To have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, besides it is fully customizable according to clients preferences.

- Reaction power : **3000 TON**
- Clamping style : Type 8 - External radial with Overpressure Auto-Adaptive seals
- Max pipe lenght : 12.500 mm
- Max pipe diameter : 1420 mm
- Allowed elliptical error : 1,5%
- Flow axes height : 2500 mm
- Basement water wessel : 25000 Liters
- Max test pressure : 700 / 1380 bar
- Filling flow : 4000 Liters/min
- Pneumatic supply : 7 bar @ 4000 Liters/min
- Dimension (mech) : 21000 (L) x 3500 (D) x 3700 (H) mm

DN (mm)	508	559	610	660	711	762	813	864	914	965	1016	1067	1118	1168	1219	1270	1321	1372	1422
bar	1380	1224	1028	876	756	658	578	512	457	410	370	336	306	280	257	237	219	203	189

DN (inch)	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56
PSI	20000	17746	14912	12706	10956	9544	8388	7423	6633	5948	5368	4869	4437	4059	3728	3436	3176	2946	2739

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

**BOT-2CV/2000**

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING INNER RADIAL SEAL+  
PROPORTIONAL PRESS CONTROL

CLAMP  
TYPE  
**3**

**100"**



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Test rigs for pipes with clamping style Nr. 3 "Inner/outer seal" or "proportional press". Reaction bridges are connected by screwed columns that allow to set up maximum pipe length. The left side reaction bridge is able to run on the entire columns length to cover a wide range of pipe length measures as described in the technical table below. Pipe loading is performed by crane from the top, while Nr. 2 hydraulic "V" shape lifters will support it for entire test duration and are able to center the alignment on seals heads. The basement includes a water vessel with evaporation limit device. The 45° columns orientation makes loading procedure easy requiring less lifting height to climb over the reaction column. The test bench does not need any foundations preparation. The rig is controlled by a SKA class pressurization skid up to 2000 Liters/min water filling ability. To have more information about it, please consult dedicated technical data sheets. The rig could be completed with several options and accessories, besides it is fully customizable according to clients preferences.

Reaction force	: <b>2000 TON</b> (10% minimum press clamping)
Clamping style	: Type 3 - Combined clamping
Max pipe length	: 5400 mm
Min pipe length	: 750 mm
Column inner clearance	: 2710 mm
Max pipe diameter	: 2600 mm
Allowed elliptical error	: 0.5%
Flow axes height	: 2530 mm
Basement water vessel	: 3000 Liters
Electrical supply	: 3PH + T, 380V@50Hz, 12KW
Dimensions (mech)	: 10500 (L) x 3500 (D) x 4300 (H) mm

DN (mm)	1016	1118	1219	1321	1422	1524	1626	1727	1829	1930	2032	2134	2235	2337	2438	2540
bar	247	204	171	146	126	110	96	85	76	68	62	56	51	47	43	39

DN (inch)	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96	100
PSI	3579	2958	2485	2118	1826	1591	1398	1238	1105	991	895	812	739	677	621	573



**BOT-2CSC/1200** DOUBLE SECTORIZED COLUMNS  
**BOT-2CSV/1200** PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**1**



CLAMP  
TYPE  
**2**



Test rigs for pipes with clamping style Nr. 1 “proportional press”. Reaction bridges are connected by sectors columns, that allow to set up maximum pipe length. The fine adjustment on pipes is performed by pressing cylinder stroke.

The right side reaction bridge is able to run on entire columns length to cover wide range of pipe length measure, as described in the technical table below. Pipe loading is performed by crane from top side, while Nr. 4 hydraulic “Lunette” lifters will support it for entire test duration and are able to center the alignment on seals heads, and “keep” it to avoid its bending during tests. The basement includes a water vessel with an evaporation limitation device. The test bench does not need any foundations preparation. The rig is controlled by SKA class pressurization skid up to 1000 Liters/min water filling ability.

To have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, besides it is fully customizable according to client preferences.

		<b>BOT-2CSC/1200</b>	<b>1</b>	<b>BOT-2CSV/1200</b>	<b>2</b>
Reaction power	:	<b>1200 TON</b>		<b>1200 TON</b>	
Clamping style	:	Type 1 - Proportional pressing		Type 2 -External radial seals	
Max pipe length	:	12500 mm		7100 mm	
Min pipe length	:	2000 mm		1500 mm	
Max pipe diameter	:	1250 mm		1020 mm	
Allowed elliptical error	:	0.5%		0.5%	
Flow axes height	:	1770 mm		1550 mm	
Basement water vessel	:	14000 Liters		6000 Liters	
Max test pressure	:	700 - 1050 bar		700 - 1050 bar	
Filling flow	:	1000 Liters/min		500 Liters/min	
Pneumatic supply	:	6.5 bar @ 1500 NI/min		6.5 bar @ 1100 NI/min	
		Dry air not lubricated		Dry air not lubricated	
Dimensions (mech)	:	15000 (L) x 2720 (D) x 2650 (H) mm		9700 (L) x 2500 (D) x 2180 (H) mm	

<b>1</b>	DN (mm)	114	141	168	219	273	324	356	406	457	508	559	610	660	711	762	813	864	914	965	1016	1067	1118	1168	1219
	bar	1380	1380	1380	1380	1380	1380	1209	926	731	592	490	411	351	302	263	231	205	183	164	148	134	122	112	103

<b>2</b>	DN (mm)	114	141	168	219	273	324	356	406	457	508	559	610	660	711	762	813	864	914	965	1016
	bar	1380	1380	1380	1380	1026	729	604	463	366	296	245	206	175	151	132	116	102	91	82	74



**BOT45-2V/250**

DOUBLE SCREWED COLUMNS, EXTERNAL RADIAL SEALS OR AUTOADAPTIVE SEALS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**2**

CLAMP  
TYPE  
**8**



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Test rigs for pipes with clamping style Nr. 2 "Inner/outer seal" or Nr. 8 "overpressure auto-adaptive seals" for elliptical shape error. Reaction bridges are connected by screwed columns that allow to set up maximum pipe length. The right side reaction bridge is able to run on the entire columns length to cover a wide range of pipe length measures as described in the technical table below. Pipe loading is performed by a crane from the top or horizontally, while Nr. 2 hydraulic "V" shape lifters will support it for the entire test duration and are able to center the alignment on seals heads. The basement includes a water vessel with an evaporation limitation device (on request). The test bench does not need any foundations. The rig is controlled by a SKA class pressurization skid with 120 Liters/min water filling ability. To have more information about it, please consult dedicated technical data sheets. The rig could be completed with several options and accessories, besides it is fully customizable according to client preferences.

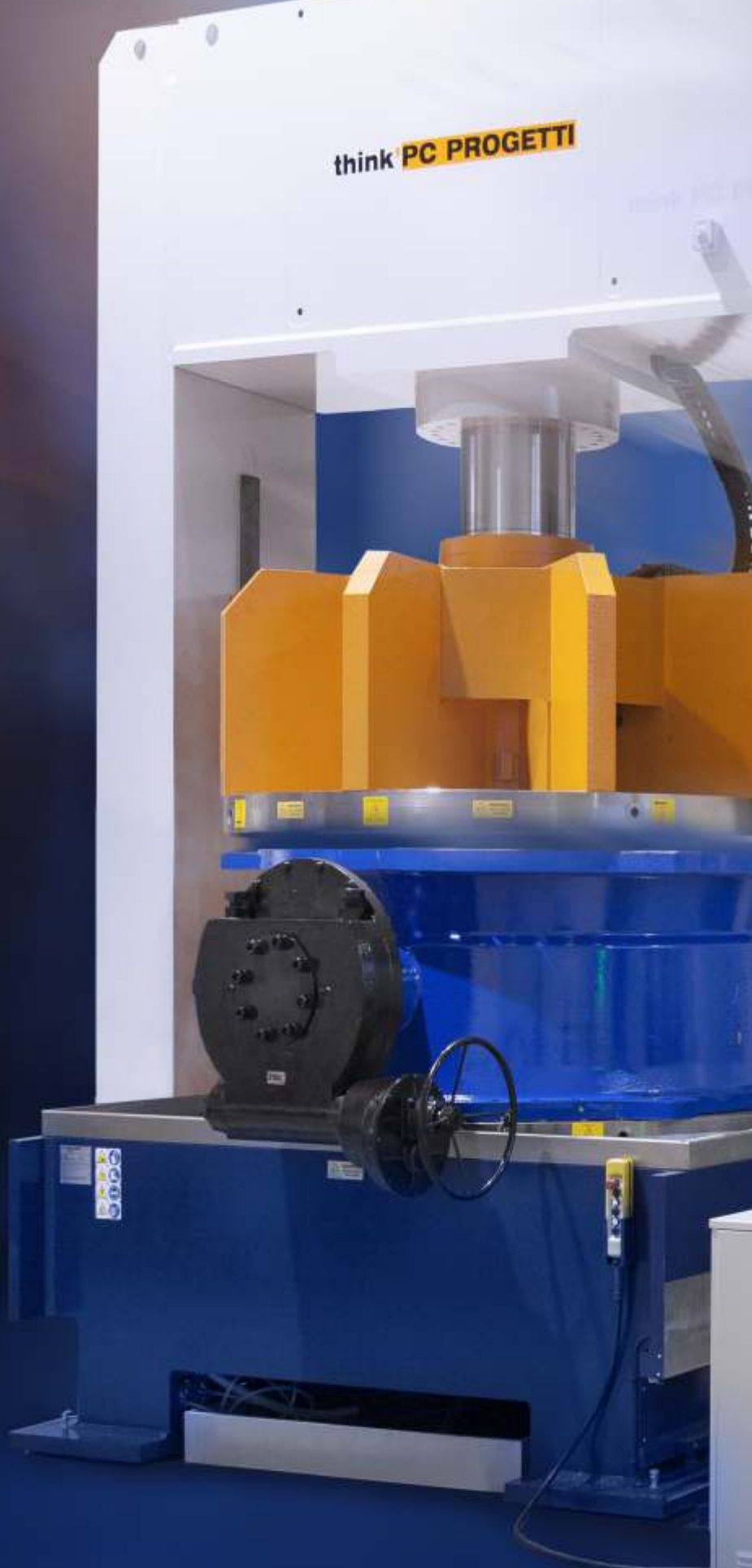
- Reaction force : **250 TON**  
(See working limits table)
- Pipe length max : 7200 mm
- Pipe length min : 2500 mm
- Pipe max diameter : 700 mm
- Flow axes height : 1200 mm
- Basement water vessel : Max 3000 Liters
- Lifter : See Option
- Screw dust protection : See Option
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Bore Plugs  
Type 8 – Auto adaptive seals
- Dimensions (mech) : 8850 (L) x 1580 (D) x 2000 (H) mm



DN (mm)	114	141	168	219	273	324	356	406	457	508	559	610	660
bar	1380	1276	899	531	342	243	201	154	122	99	82	69	58

DN (inch)	4	5	6	8	10	12	14	16	18	20	22	24	26
PSI	20000	18503	13042	7696	4957	3521	2921	2237	1767	1432	1183	994	847

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BV-PMC/2000

# Vertical test benches for valves

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**BV-PMC/2000**

MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**1**



Vertical test bench with mobile bridge and proportional press clamping. Press force is controlled automatically and proportionally to rising pressure inside the valve during tests. Doing so the resulting mechanical load on valve body is reduced to minimal terms. Mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next piece. In the basement there is a water vessel for spilt water and an external water tank as water reservoir could be added as an option. The use of an open castle as upper side reaction structure allows the user to make a visual inspection of the valve seat during tests. The rig is controlled by a **SKA-500** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric garrison available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **2000 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 1350 mm
- Valve length min : 300 mm
- Column inner clearance : 2830 mm
- Loading height : 1500 mm
- Bridge course : 2680 mm
- Basement water vessel : 500 Liters
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping
- Dimensions (mech) : 3800 (L) x 4150 (D) x 5328 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400
PN-6	TON											
PN-10	TON											
PN-16	TON											
PN-25	TON											
PN-40	TON											
PN-63	TON											

\*Note: Showed data has been calculated considering SHELL TEST pressure and nominal minimum bore size DIN + 80mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.



**BV-PMC/900**

MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

CLAMP  
TYPE  
**1**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

Vertical test rig with controlled pressing clamp; press force is controlled automatically according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by a **SKA-500** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **900 TON** (10% minimum press clamping)
- Working stand : 1 ( 2 on request)
- Length max : 1000 mm
- Length min : 250 mm
- Column inner clearance : 2400 mm
- Loading height : 1100 mm
- Bridge course : 1600 mm
- Basement water vessel : 350 Liters ca.
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping
- Clamping force control : Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test. Regulation can be controlled by the operator.
- Dimensions (mech) : 3260 (L) x 3100 (D) x 5200 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000
PN-10	TON												
PN-16	TON												
PN-25	TON												
PN-40	TON												
PN-64	TON												
PN-100	TON												



\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 100 mm. For further details please contact our technical department.



**BV-PMC/800**

MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

CLAMP  
TYPE  
1

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Vertical test rig with controlled pressing clamp; press force is controlled automatically according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **800 TON** (10% minimum press clamping)
- Working stand : 1 ( 2 on request)
- Length max : 1500 mm
- Length min : 200 mm
- Column inner clearance : 1040 mm
- Loading height : 1050 mm
- Bridge course : 800 mm
- Basement water vessel : 350 Liters ca.
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping
- Clamping force control : Automatic within 10..100% interval, proportional to hydrostatic pressure inside the valve under test. Regulation can be controlled by the operator
- Dimensions (mech) : 1800 (L) x 2060 (D) x 4500 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

DN	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
ANSI-150	TON												
ANSI-300	TON												
ANSI-600	TON												
ANSI-900	TON												
ANSI-1500	TON												
ANSI-2500	TON												
ANSI-4500	TON												

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 60 mm. For further details please contact our technical department.



**BV-PMC/650W**

MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

CLAMP  
TYPE  
**1**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force	:	<b>650 TON</b> (10% minimum press clamping) (See working limits table)
Working stands	:	1 (2 on request)
Allowed sizes	:	DN700/DN2000, PN16/PN64
Valve length max	:	750 mm
Valve length min	:	250 mm
Columns inner clearance	:	2400 mm
Loading height	:	1000 mm
Bridge course	:	1600 mm
Basement water vessel	:	220 Liters (Only for spilled water, not for storage)
Terminations allowed	:	RF, RJ
Clamping style	:	Type 1 – Proportional press clamping.
Clamping force control	:	Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test.
Dimensions (mech)	:	3100 (L) x 3260 (D) x 3500 (H) mm

Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	700	800	900	1000	1200	1300	1400	1500	1600	1800	2000
PN-10	TON											
PN-16	TON											
PN-25	TON											
PN-40	TON											
PN-64	TON											

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 80 mm. For further details please contact our technical department.

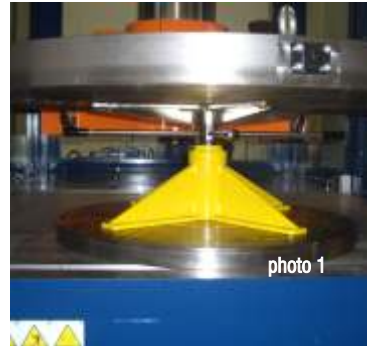


**BV-PMC/650**

MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**1**



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig has an armoured glass protection on 3 sides according EN1063. The front side can be closed by a mobile horizontal sliding gate (optional). Upper side crociera is equipped with a fast connection (photo 2) for sealing plateau, and a mounting tool is included as well (photo 1). The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicate technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **650 TON** (10% minimum press clamping)  
(See working limits table)
- Working stands : 1 ( 2 on request)
- Allowed sizes : DN700/DN2000, PN16/PN64
- Valve length max : 1250 mm
- Valve length min : 200 mm
- Columns inner clearance : 1600 mm
- Loading height : 1000 mm
- Bridge course : 1300 mm
- Basement water vessel : 220 Liters (Only for spilled water not for storage)
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping.
- Clamping force control : Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test.
- Protection against water jet : Armoured glass on 3 side according En1063 + front door on request
- Dimensions (mech) : 2350 (L) x 2900 (D) x 4240 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

DN	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
ANSI-150 TON														
ANSI-300 TON														
ANSI-600 TON														
ANSI-900 TON														
ANSI-1500 TON														
ANSI-2500 TON														

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 50mm. For further details please contact our technical department.



**BV-PMV/600**

SINGLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**2**



Vertical test rig with inner radial seal clamping style. The mobile reaction bridge is moved by one screwed column that assures complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

In the basement a water vessel could be installed as water reservoir for test procedures (see Option).

The rig is controlled by a **SKM-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force	:	<b>600 TON</b> (See working limits table)
Valve length max	:	3000 mm
Valve length min	:	700 mm
Column inner clearance	:	1720 mm
Loading height	:	floor ground
Basement water vessel	:	300 Liters ca.
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 2 – Inner radial
Reference standard	:	ISO, DIN, API, ANSI, ASTM, FCI, BS (Other on request).
Electric supply	:	3PH + T, 380V@50Hz, 10KW
Dimensions (mech)	:	2420 (L) x 3250 (D) x 7350 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	10"	12"	14"	16"	18"	20"	24"	28"	30"	32"	36"
ANSI-150	TON											
ANSI-300	TON											
ANSI-600	TON											
ANSI-900	TON											
ANSI-1500	TON											
ANSI-2500	TON											

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BV-PMC/550**

MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

CLAMP  
TYPE  
1

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **550 TON** (10% minimum press clamping)  
(See working limits table)
- Working stands : 1 ( 2 on request)
- Valve length max : 1500 mm
- Valve length min : 700 mm
- Columns inner clearance : 2200 mm
- Loading height : 1000 mm
- Bridge course : 1250 mm
- Basement water vessel : 220 Liters (only for spilled water)
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping.
- Clamping force control : Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test. Regulation can be controlled by the operator.
- Dimensions (mech) : 3020 (L) x 2200 (D) x 4200 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	600	700	800	900	1000	1200	1300	1400	1500	1600	1800	2000
PN-10	TON												
PN-16	TON												
PN-25	TON												
PN-40	TON												
PN-64	TON												

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 80mm. For further details please contact our technical department.





**BV-PMC/500S** MOBILE BRIDGE  
**BV-PMC/100SP** PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**1**



**BV-PMC/500S**



**BV-PMC/100SP**

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

	<b>BV-PMC/500S</b>	<b>BV-PMC/100SP</b>
Reaction force	: <b>500 TON</b> (10% minimum press clamping) (see working limits table)	: <b>100 TON</b> (10% minimum press clamping) (see working limits table)
Working stands	: 1 (2 on request)	: 1 (2 on request)
Valve length max	: 700 mm	: 900 mm
Valve length min	: 200 mm	: 100 mm
Columns inner clearance	: 1000 mm	: 1000 mm
Loading height	: 1000 mm	: 800 mm
Bridge course	: 850 mm	: 600 mm
Basement water vessel	: 150 Liters	: 120 Liters
Terminations allowed	: RF, RJ	: RF, RJ
Clamping style	: Type 1 – Proportional Compression (flange surface).	: Type 1 – Proportional Compression (flange surface).
Clamping force control	: Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test.	: Automatic within 5..100% interval, proportional to the hydrostatic pressure inside the valve under test.
Protection against water jet	: Armoured steel on 3 side + mobile front door	: Armoured steel on 3 side + mobile front door
Dimensions (mech)	: 1460 (L) x 2360 (D) x 2600 (H) mm	: 1460 (L) x 2360 (D) x 2600 (H) mm

Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig has a armoured steel protection on 3 sides. The front side can be closed by a mobile horizontal sliding gate (optional). A marking machine is connected directly to control PLC to mark serial numbers on tested pieces. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

**BV-PMC/500S**

ANSI	DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

**BV-PMC/100SP**

ANSI	DN	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150	TON										
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 50mm. For further details please contact our technical department.



**BV-PMC/350**

MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **350 TON** (10% minimum press clamping)  
(See working limits table)
- Working stands : 1 (2 on request)
- Valve lenght max : 1280 mm
- Valve lenght min : 180 mm
- Columns inner clearance : 1620 mm
- Loading height : 900 mm
- Bridge course : 1280 mm
- Basement water vessel : 200 Liters
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping.
- Clamping force control : Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test.
- Dimensions (mech) : 2140 (L) x 1700 (D) x 4050 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	300	350	400	450	500	600	700	800	900	1000	1200
PN-10	TON											
PN-16	TON											
PN-25	TON											
PN-40	TON											

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 50mm. For further details please contact our technical department.



**BV-PMV/350**

SINGLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

CLAMP  
TYPE  
**2**



Vertical test rig with inner radial seal clamping style. The mobile reaction bridge is moved by one screwed column that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

In the basement a water vessel could be installed as water reservoir for test procedures (see Option).

The rig is controlled by a **SKM-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

Reaction force	:	<b>350 TON</b>
		(See working limits table)
Working stands	:	1 (2 on request)
Valve length max	:	1200 mm
Valve length min	:	0 mm
Column inner clearance	:	650 mm
Loading height	:	1000 mm
Bridge course	:	1280 mm
Basement water vessel	:	300 Liters ca.
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 2 – Inner radial
Dimensions (mech)	:	1140 (L) x 1880 (D) x 4100 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	2"	3"	4"	5"	6"	8"	10"	12"
ANSI-150	TON								
ANSI-300	TON								
ANSI-600	TON								
ANSI-900	TON								
ANSI-1500	TON								
ANSI-2500	TON								

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BV-PMV/200**

MOBILE BRIDGE,  
BORE PLUGS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**2**



Vertical test rig with bore plugs clamping style. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of a opened castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by SKA/SKM classes pressurization skids; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **200 TON**
- Workig stand : 1 ( 2 on request)
- Length max : 1300 mm
- Length min : 200 mm
- Column inner clearance : 1100 mm
- Loading height : 1010 mm
- Bridge course : 900 mm
- Basement water vessel : 350 Liters ca.
- Terminations allowed : RF, RJ, BW, SW (Bore machined)
- Clamping style : Type 2 – Bore Plugs
- Dimensions (mech) : 1610 (L) x 2440 (D) x 3450/4150 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

ANSI	DN	2"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
ANSI-150	TON												
ANSI-300	TON												
ANSI-600	TON												
ANSI-900	TON												
ANSI-1500	TON												
ANSI-2500	TON												
ANSI-4500	TON												

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BV-PMC/200-2** DOUBLE LOADING PLACES  
MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

CLAMP  
TYPE  
**1**



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. A water vessel is installed in the basement as water reservoir for test procedures. This rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **200 TON** (10% minimum press clamping)  
(See working limits table)
- Working stands : 2
- Valve lenght max : 970 mm
- Valve lenght min : 100 mm
- Columns inner clearance : 1200 mm
- Loading height : 900 mm
- Bridge course : 900 mm
- Basement water vessel : 200 Liters
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping.
- Clamping force control : Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test.
- Dimensions (mech) : 1600 (L) x 1900 (D) x 3000 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	100	150	200	250	300	350	400	450	500	600	700	800	900
PN-10	TON												
PN-16	TON												
PN-20	TON												
PN-25	TON												
PN-40	TON												
PN-64	TON												
PN-100	TON												

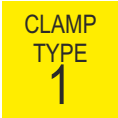
\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 50mm. For further details please contact our technical department.



**BV-PMC/200SP**

**MOBILE BRIDGE PROPORTIONAL PRESS CLAMPING WITH AUTOMATIC VALVE MARKING MICRO-PERCUSSION**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms.

The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig has a armoured steel protection on 3 sides. The front side can be closed by a mobile horizontal sliding gate (optional). A marking machine is connected directly to control PLC to mark serial numbers on tested pieces. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **200 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 450 mm
- Valve length min : 50mm
- Columns inner clearance : 650 mm
- Loading height : 900mm
- Bridge course : 600 mm
- Basement water vessel : 100 Liters
- Terminations allowed : RF, RTJ
- Clamping style : Type: 1 - Proportional press clamping
- Clamping force control : Automatic within 10..100% interval, proportional to hydrostatic pressure inside the valve under test.
- Protection against water jet : Armored steel 3 side + mobile front door
- Dimension (mech) : 1100 (L) x 1325 (D) x 2020 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	4"	6"	8"	10"	12"	14"	16"	18"	20"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 50mm. For further details please contact our technical department.





**BV-PMC/200SH** MOBILE BRIDGE PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP TYPE 1



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. A full surrounding FAIRING protection (Roof included) ensures best operators protection.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **200 TON** (10% minimum press clamping)  
(See working limits table)
- Working stands : 1
- Valve length max : 950 mm
- Valve length min : 250 mm
- Columns inner clearance : 1200 mm
- Loading height : 850 mm
- Bridge course : 1000 mm
- Basement water vessel : 220 Liters (Only for spilled water not for storage)
- Terminations allowed : RF, RJ
- Clamping style : Type 1 – Proportional press clamping.
- Clamping force control : Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test.
- Dimensions (mech) : 1680 (L) x 2665 (D) x 3250 (H) mm

The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

ANSI	DN	1/2"	1"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	
ANSI-150	TON																			
ANSI-300	TON																			
ANSI-600	TON																			
ANSI-900	TON																			
ANSI-1500	TON																			
ANSI-2500	TON																			

(\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size added by 50mm in case of press clamping. For further details please contact our technical department.



**BV-PMC/200LP** MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**1**



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig has an armoured steel protection on 3 sides. The front side can be closed by a mobile vertical sliding gate (optional). The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **200 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 450 mm
- Valve length min : 50 mm
- Column inner clearance : 1290 mm
- Loading height : 850 mm
- Bridge course : 1100 mm
- Basement water vessel : 200 Liters
- Termination allowed : RF, RTJ
- Clamping style : Type 1 – Proportional press clamping
- Clamping force control : Automatic within 10..100% interval, proportional to hydrostatic pressure inside the valve under test.
- Protection against water jet : Armored steel 3 side + mobile front door
- Dimensions (mech) : 1730 (L) x 2450 (D) x 2380 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"
ANSI-150	TON														
ANSI-300	TON														
ANSI-600	TON														
ANSI-900	TON														
ANSI-1500	TON														
ANSI-2500	TON														
ANSI-4500	TON														

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 50mm. For further details please contact our technical department.





**BV-PMC/100-2P** DOUBLE LOADING PLACES MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**1**



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **100 TON** (10% minimum press clamping)  
(See working limits table)
- Working stands : 2
- Valve length max : 650 mm
- Valve length min : 150 mm
- Columns inner clearance : 800 mm
- Loading height : 750 mm
- Bridge course : 900 mm
- Basement water vessel : 220 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 1 – Proportional press clamping.
- Clamping force control : Automatic within 10..100% interval, proportional  
to the hydrostatic pressure inside the valve under test.
- Dimensions (mech) : 1360 (L) x 2842 (D) x 2770 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

DN	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150 TON									
ANSI-300 TON									
ANSI-600 TON									
ANSI-900 TON									
ANSI-1500 TON									
ANSI-2500 TON									
ANSI-4500 TON									

\*Note: Showed data has been calculated considering SHELL test pressure and nominal bore size increased by 50mm. For further details please contact our technical department.



**BV-PMC/100S** MOBILE BRIDGE  
PROPORTIONAL PRESS CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**1**



Vertical test rig with controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The use of an open castle as an upper side reaction structure allows the user to make visual inspections of valve seats during the test. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **100 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 470 mm
- Valve length min : 0 mm
- DN min-max : DN 2" – DN 24"
- Column inner clearance : 910 mm
- Loading height : 910 mm
- Bridge course : 800 mm
- Basement water vessel : 300 Liters
- Termination allowed : RF, RTJ, Wafer
- Clamping style : Type: 1 - Proportional pres clamping
- Clamping force control : Automatic within 10..100% interval, proportional to hydrostatic pressure inside the valve under test.
- Protection against water jet : available on request.
- Dimension (mech) : 1260 (L) x 1320 (D) x 2110 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	DN	4"	6"	8"	10"	12"	14"	16"	18"	20"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size increased by 50 mm. For further details please contact our technical department.



**BV-PMMV/100SH** MOBILE BRIDGE  
UNIVERSAL CLAMPING

CLAMP  
TYPE  
**4**



Vertical test rig with universal clamping system; all valve termination kinds straight shape & 90° shape can be clamped. In case of press clamping the force is automatically controlled proportionally to the water pressure inside the valve and the result load is reduced to minimal terms. The mobile upper side bridge allows vertical loading of the valve with a crane. In the basement there is a water vessel and an external water tank could be added as option. A full surrounding armored fairing system ensures operator safety during tests. Process equipment can be self-contained with a control console only or any standard pressurization skid can be added (SKA class).



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **100 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 700 mm
- Valve length min : 0 mm
- DN min-max : DN 1/2" – DN 12" (on request up to 24")
- Max valve flange diameter : 530 mm
- Loading height : 910 mm
- Basement water vessel : 200 Liters
- Termination allowed : ALL
- Clamping style : Type: 4 - Universal
- Press Clamping force control : Automatic within 10..100% interval, proportional to hydrostatic pressure inside the valve under test.
- Dimension (mech) : 1420 (L) x 2000 (D) x 3110 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1/2"	1"	2"	3"	4"	5"	6"	8"
ANSI-150	TON								
ANSI-300	TON								
ANSI-600	TON								
ANSI-900	TON								
ANSI-1500	TON								
ANSI-2500	TON								

(\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size added by 50mm in case of press clamping. For further details please contact our technical department.





**BV-PMCV/100H** MOBILE BRIDGE  
COMBINED CLAMPING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Vertical test rig with combined clamping style: inner radial seal and proportional press clamping facilities.

The upper side screw assures complete absence of external forces on valves body and an hydraulic cylinder can make press clamping with or without proportional control.

This prerogative makes it compliant to the most widespread international test standards.

An upper side bridge allows vertical loading of valves and the possibility to have double working stands; while the first is working, the second could be prepared for the next valves. In the basement there is a water vessel and an external water vessel could be added as option. The rig is controlled by a SKA class pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **100 TON** (10% minimum press clamping)
- Workig stand : 1 ( 2 on request)
- Length max : 3500 mm
- Length min : 200 mm
- Column inner clearance : 1300 mm
- Loading height : 700 mm
- Bridge course : 900 mm
- Basement water vessel : 250 Liters ca.
- Terminations allowed : RF, RJ, BW, SW
- Clamping style : Type 3 – Bore Plugs & proportional press clamping
- Dimensions (mech) : 1740 (L) x 2090 (D) x 5300/8500 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"
ANSI-150	TON											
ANSI-300	TON											
ANSI-600	TON											
ANSI-900	TON											
ANSI-1500	TON											
ANSI-2500	TON											

(\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size added by 50mm in case of press clamping. For further details please contact our technical department.



**BV-1V/200**

SINGLE SCREWED COLUMN  
INNER RADIAL SEAL (BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**2**



Vertical test rig with inner radial seal clamping style. The mobile reaction bridge is moved by one screwed column that assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

In the basement a water vessel could be installed as water reservoir for test procedures (see Option).

The rig is controlled by a **SKM-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force	:	<b>200 TON</b> (See working limits table)
Valve length max	:	1000 mm
Valve length min	:	100 mm
Column inner clearance	:	900 mm
Loading height	:	800 mm
Basement water vessel	:	200 Liters
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 2 – Inner radial
Dimensions (mech)	:	1340 (L) x 1790 (D) x 3240 (H) mm



Loading tray available as option

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	2"	4"	6"	8"	10"	12"	14"	16"	20"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BV-CV/100**

COMBINED CLAMPING  
INNER RADIAL SEAL + PROPORTIONAL  
PRESSING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Vertical test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by a screwed column that assures complete absence of external forces on valves body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative makes it compliant to the most widespread international test standards.

In the basement there is a water vessel and an external water vessel could be added as option. The rig is controlled by **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **100 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 1000 mm
- Valve length min : 0 mm
- Column inner clearance : 900 mm
- Loading height : 900 mm
- Basement water vessel : 300 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined  
Inner radial clamping & Pressing clamping with Proportional control.
- Dimensions (mech) : 1340 (L) x 1690 (D) x 2604/3520 (H) mm



Loading tray available as option

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

DN	2"	4"	6"	8"	10"	12"	14"	16"	18"
ANSI-150 TON									
ANSI-300 TON									
ANSI-600 TON									
ANSI-900 TON									
ANSI-1500 TON									
ANSI-2500 TON									

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BV-CCV/20P**

COMBINED CLAMPING INNER RADIAL SEAL + PROPORTIONAL PRESSING AND AUTOMATIC VALVE ACTUATOR

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP TYPE  
**3**



Fully automatic vertical test rig with bore plugs or controlled pressing clamp; press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. It has a 90° hydraulic actuator that lets the valve move according to a test sequence.

The high resolution differential pressure drop leak detection system is used to measure leak rates according to DIN 12266-1 for GAS leakages.

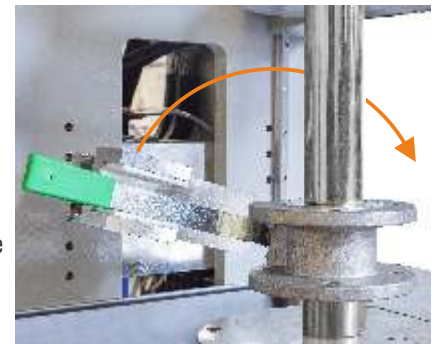
A mobile loading plate makes loading operations simple. A mobile vertical protection assures operators safety in case of seal blowing.

An electronic PLC controls all test operations, and the operator has a LCD touch screen monitor to setup test sequences.



**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **20 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 505 mm
- Valve length min : 30 mm
- Loading height : 900 mm
- Water vessel : External 220 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined
- Clamping force control : Automatic within 10..100% interval, proportional to the hydrostatic pressure inside the valve under test. Regulation can be controlled by the operator.
- Hydraulic test : H<sub>2</sub>O w/oil 5% , 3-40bar (200 bar, 650 bar, as option)
- Pneumatic test : 0,5 – 6 bar
- Pneumatic supply : 6.5 bar @ 1100 NI/min - Dry air not lubricated
- Electric supply : 3PH + T, 400V@50Hz, 5KW
- Dimensions (mech) : 1550 (L) x 1050 (D) x 2250 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	50	100	125	150	200
PN-10	TON					
PN-16	TON					
PN-25	TON					
PN-40	TON					
PN-64	TON					
PN-100	TON					

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + **30mm** and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BV-CCV/15P**

COMBINED CLAMPING  
INNER RADIAL SEAL + PROPORTIONAL  
PRESSING

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Vertical test rig with an automatic test sequence. Combined clamping style: proportional press clamping and inner radial seals. A protection against water jets surrounds the valve under test and it is automatically controlled with pneumatic cylinders. A PLC controls test sequences that can be configured by a LCD touch screen. Full automatic test cycles with leakage flange measuring (water fail) are available.

**!** Note: Safety perimetric protection available as option  
Bunker or Pit assembly asset available as option.

- Reaction force : **15 TON** (10% minimum press clamping)  
(See working limits table)
- Valve length max : 590 mm
- Valve length min : 50mm
- Loading height : 900mm
- Water vessel : 300 Liters external
- Terminations allowed : BW, SW, RF, RTJ
- Clamping style : Type: 3 – Combined: Proportional pressing & inner radial seal (bore plugs)
- Clamping force control : Automatic within 10..100% interval, proportional to hydrostatic pressure inside the valve under test.
- Reference standards : ISO, DIN, API, ANSI, ASTM, FCI, BS (Other on request).
- Hydraulic test : H2O 700 bar MAX
- Pneumatic test : 0.5 bar – 6 bar
- Pneumatic supply : 6.5 bar @ 1100 NI/min - Dry air not lubricated
- Electric supply : 3PH + T, 380V@50Hz, 5KW
- Dimension (mech) : 730 (L) x 1010 (D) x 2340 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1"	2"	3"	4"	6"	8"
ANSI-150	TON						
ANSI-300	TON						
ANSI-600	TON						
ANSI-900	TON						
ANSI-1500	TON						
ANSI-2500	TON						

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 30mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig





**BV-C/30SH**

PRESS CLAMPING W/PROPORTIONAL CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**1**



Vertical test bench with proportional press clamping. Valve clamping is performed by an hydraulic cylinder with proportional control. Operator safety is granted by full surrounding protection guarding with bullet proof crystal to offer a perfect visual inspection. The opening of the fence is ruled by a control system to reduce operator risk exposure to minimum terms. The test process is controlled by an automatic asset.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **30 TON**  
(See working limits table)
- Valve length max : 150 mm
- Valve length min : 0 mm
- Clearance between column : 600 mm
- Loading height from soil : 1280 mm
- Terminations allowed : RF, RTJ, Screwed port, MP, HP, UHP
- Clamping style : Type 1 – Proportional press clamping
- Dimensions (mech) : 2172 (L) x 880 (D) x 2061 (H) mm

**\*Working limits for SHELL TEST with PROPORTIONAL PRESS CLAMPING**

	1/4"	3/8"	9/16"
10K PSI			
15K PSI			
20K PSI			
30K PSI			
60K PSI			

\*Note: Showed data has been calculated considering SHELLTEST pressure For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.

**BOR-M/350**

# Tiltable test benches for valves





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PROGETTI

**think'PC PROGETTI**



**BOR-M/350**

DOUBLE CLAWS CLAMPING  
WHIT TILTABLE BRIDGE

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**6**



Horizontal test rig with double claws clamping and tiltable on a side. The right hand-side is movable to adjust to valves length. Claws clamping can be performed only on flanged valves. It allows testing of mechanical stress on flange neck during test performance. Besides, the clamping force has no influence on valve seat behaviour during test, due to the absence of external forces applied. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force : **350 TON**  
(See working limits table)
- Length max : 2200 mm
- Length min : 500 mm
- Flange diameter max : 1200 mm
- Flange diameter min : 120 mm
- Flange thickness max : 150 mm
- Flange thickness min : 0 mm
- Flow axis height : 1180 mm
- Basement water vessel : 1000 Liters ca.
- Terminations allowed : RF, RJ
- Clamping style : Type 6 – Double claws clamping
- Dimensions (mech) : 4460 (L) x 2300 (D) x 1930 (H) mm

**\*Working limits for SHELL TEST with CLAWS CLAMPING:**

DN	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"
ANSI-150 TON														
ANSI-300 TON														
ANSI-600 TON														
ANSI-900 TON														
ANSI-1500 TON														
ANSI-2500 TON														
ANSI-4500 TON														

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size added by 80mm in case of press clamping. For further details please contact our technical department.



**BOR-M/200**  
**BOR-M/60**

DOUBLE CLAWS CLAMPING  
WHIT TILTABLE BRIDGE

CLAMP  
TYPE  
**6**



Horizontal test rig with double claws clamping and tiltable on a side. The right hand-side is movable to adjust to valves length.

Claws clamping can be performed only on flanged valves.

It allows testing of mechanical stress on flange neck during test performance.

Besides, the clamping force has no influence on valve seat behaviour during test, due to the absence of external forces applied. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

	<b>BOR-M/200</b>	<b>BOR-M/60</b>
Reaction force	: <b>200 TON</b>	<b>60 TON</b>
Length max	: 1700 mm	1350 mm
Length min	: 100 mm	100 mm
Flange diameter max	: 700 mm	550 mm
Flange diameter min	: 120 mm	120 mm
Flange thickness max	: 100 mm	80 mm
Flange thickness min	: 0 mm	0 mm
Flow axis height	: 1070 mm	950 mm
Basement water vessel	: 800 Liters ca.	300 Liters ca.
Terminations allowed	: RF, RJ	RF, RJ
Clamping style	: Type 6 – Double claws clamping	Type 6 – Double claws clamping
Dimensions (mech)	: 3500 (L) x 1800 (D) x 1625 (H) mm	3100 (L) x 1600 (D) x 1500 (H) mm

**BOR-M/200**

★ Working limits for SHELL TEST with CLAWS CLAMPING:

	DN	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
ANSI-150	TON											
ANSI-300	TON											
ANSI-600	TON											
ANSI-900	TON											
ANSI-1500	TON											
ANSI-2500	TON											
ANSI-4500	TON											

**BOR-M/60**

★ Working limits for SHELL TEST with CLAWS CLAMPING:

	DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
ANSI-150	TON										
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										
ANSI-4500	TON										

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size added by 50mm in case of press clamping. For further details please contact our technical department.



**BOR-2V/600**  
**BOR-2CV/600**

BORE PLUGS OR COMBINED CLAMPING  
W/90° TILT ABILITY

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**2**

CLAMP  
TYPE  
**3**



Horizontal test rig with “bore plug” clamping or “combined clamping”. The mobile reaction bridge is moved by one screwed column that assures complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. Besides, valve flow axes can be tilted by 90° according to the test position wanted by the customer. In the basement a water vessel is installed as water reservoir for test procedures. Test process is controlled by a **SKA-100** pressurization SKID. See dedicate literatures for further details.



**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

		<b>BOR-2V/600</b> <b>2</b>
Reaction force	:	<b>600 TON</b> (10% minimum press clamping) (See working limits table)
Length max	:	2500 mm
Length min	:	200 mm
Columns inner clearance	:	1400 mm
Loading height	:	Vertical 1380 mm / Horizontal 1200 mm
Rotation angle	:	90°
Basement water vessel	:	1000 Liters
Termination allowed	:	RF, RTJ, BW, SW
Clamping style	:	Type 2 – Bore Plugs
Dimensions (mech) horizontal	:	2700 (L) x 4300 (D) x 1520 (H) mm
Dimensions (mech) vertical	:	2700 (L) x 4300 (D) x 4800 (H) mm

		<b>BOR-2CV/600</b> <b>3</b>
Reaction force	:	<b>600 TON</b> (10% minimum press clamping) (See working limits table)
Length max	:	1900 mm
Length min	:	0 mm
Columns inner clearance	:	1400 mm
Loading height	:	Vertical 1380 mm / Horizontal 1200 mm
Rotation angle	:	90°
Basement water vessel	:	1000 Liters
Termination allowed	:	RF, RTJ, BW, SW
Clamping style	:	Type 3 - Combined
Dimensions (mech) horizontal	:	2700 (L) x 4300 (D) x 1520 (H) mm
Dimensions (mech) vertical	:	2700 (L) x 4300 (D) x 4800 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1/2"	1"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	
ANSI-150	TON																				
ANSI-300	TON																				
ANSI-600	TON																				
ANSI-900	TON																				
ANSI-1500	TON																				
ANSI-2500	TON																				

\*Note: Showed data have been calculated considering API SHELL test pressure and nominal bore size. For further details please contact our technical department.



**BOR-1V/250**  
**BOR-CV/250**

BORE PLUGS OR COMBINED CLAMPING  
W/90° TILT ABILITY



Horizontal test rig with “bore plug” clamping or “combined clamping”.  
The mobile reaction bridge is moved by one screwed column that assures the complete absence of external forces on valve body with bore plugs clamping, or perform a “face to face” sealing using proportional press clamping style. This prerogative makes it compliant to the most widespread international test standards.  
Besides, valve flow axes can be tilted by 90° according to the test position preferred by customer. In the basement a water vessel is installed as water reservoir for test procedures. The test process is controlled by a **SKA-100** pressurization SKID.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

	<b>BOR-1V/250</b> <span style="background-color: red; color: white; padding: 2px;">2</span>	<b>BOR-CV/250</b> <span style="background-color: green; color: white; padding: 2px;">3</span>
Reaction force	: <b>250 TON</b> (See working limits table)	: <b>250 TON</b> (See working limits table)
Valve length max	: 1500 mm	: 1300 mm
Valve length min	: 200 mm	: 0 mm
Column inner clearance	: 1100 mm	: 1100 mm
Flow axes height in horizontal position	: 720 mm	: 720 mm
Loading height in vertical position	: 1020 mm	: 1220 mm
Basement water vessel	: 300 Liters	: 300 Liters
Terminations allowed	: BW, SW, RF, RTJ	: BW, SW, RF, RTJ
Clamping style	: Type 2 – Bore Plugs	: Type 3 – Combined
Dimensions (mech) horizontal	: 2120 (L) x 3970 (D) x 970 (H) mm	: 2120 (L) x 2900 (D) x 970 (H) mm
Dimensions (mech) vertical	: 2120 (L) x 2900 (D) x 3300/4100 (H) mm	: 2120 (L) x 2900 (D) x 3300/4100 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	4"	6"	8"	10"	12"	14"	16"	18"	20"	20"	24"
ANSI-150	TON											
ANSI-300	TON											
ANSI-600	TON											
ANSI-900	TON											
ANSI-1500	TON											
ANSI-2500	TON											

\*Note: Showed data has been calculated considering SHELL TEST pressure and nominal minimum bore size ANSI + 50mm.  
For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.



**BOR-1V/200**

BORE PLUGS CLAMPING  
W/90° TILTABILITY

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**2**



Horizontal test rig with bore plug clamping style: inner radial seal facilities. The mobile reaction bridge is moved by one screwed column that assures the complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. Besides, valve flow axes can be tilted by 90° according to the test position preferred by the customer.

A water vessel is installed in the basement as water reservoir for test procedures. The test process is controlled by **SKA-100** pressurization SKID. See dedicate literatures for further details.



**!** Note: Safety perimetral protection available on request

- Reaction force : **200 TON** (See working limits table)
- Length max : 1000 mm
- Length min : 100 mm
- Columns inner clearance : 900 mm
- Loading height : Horizontal 720 mm / Vertical 1020 mm
- Rotation angle : 90°
- Basement water vessel : 600 Liters
- Termination allowed : RF, RTJ, BW, SW
- Clamping style : Type 2 – Bore Plugs
- Dimensions (mech) : Horizontal : 1920 (L) x 3500 (D) x 970 (H) mm  
Vertical : 1920 (L) x 2500 (D) x 2820 / 3700 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	4"	6"	8"	10"	12"	14"	16"	18"	20"
ANSI-150	TON									
ANSI-300	TON									
ANSI-600	TON									
ANSI-900	TON									
ANSI-1500	TON									
ANSI-2500	TON									

\*Note: Showed data have been calculated considering API SHELL test pressure and nominal bore size. For further details please contact our technical office.

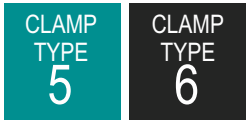




**BOR-M/20P**

CLAWS CLAMPING  
+ PORTABLE CLAMPING DEVICE

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



**!** Note: Safety perimetric protection available as option  
Bunker assembly asset available as option.

- Reaction force : **20 TON**
- Max flange diameter : 200 mm
- Min flange diameter : 90 mm
- Flange thickness max : 10 - 65mm
- Tilting angle : 90°
- Basement water vessel : 100 Liters ca.
- Terminations allowed : RF, RJ
- Clamping style : Type 5 – Claws only
- Dimensions (mech) : 1020 (L) x 1940 (D) x 1800 (H) mm

**\*Working limits for SHELL TEST with CLAWS CLAMPING:**

	DN	1/2"	1"	2"	3"
ANSI-150	TON				
ANSI-300	TON				
ANSI-600	TON				
ANSI-900	TON				



Tiltable Single/Double claws clamping with a floor-fixed claws clamping unit, and optional portable clamping unit. Claws clamping can be performed only on flanged valves.

It allows the testing of mechanical stress on flange necks during test performing. Besides, the clamping force has no influence on valve seat behaviour during test, due to the absence of external forces applied.

Even VISUAL tests on valve seat during test are facilitated. Armored fairing system ensures operators safety.

The rig is controlled by a **SKMM-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.



Auto centering claws movement with manual lever

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 20mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BOR-M/15**

**CLAWS CLAMPING  
+ PORTABLE CLAMPING DEVICE**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Tiltable Single/Double claws clamping with a floor fixed claws clamping unit, and optional portable clamping unit. Claws clamping can be performed only on flanged valve.

It allows the testing of mechanical stress on flange neck during test performing. Besides, the clamping force has no influence on valve seat behaviour during test, due to the absence of external forces applied. Even a VISUAL test on valve seat during test is facilitated.

The rig is controlled by a **SKMM-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **15 TON**
- Max flange diameter : 400 mm
- Min flange diameter : 90 mm
- Flange thickness max : 10 - 65mm
- Tilting angle : 90°
- Basement water vessel : 100 Liters ca.
- Terminations allowed : RF, RJ
- Clamping style : Type 5 – Claws only
- Dimensions (mech) : 1180 (L) x 1230 (D) x 1060 (H) mm

**\*Working limits for SHELL TEST with CLAWS CLAMPING:**

DN	1"	2"	3"	4"	6"	8"
ANSI-150 TON	■	■	■	■	■	■
ANSI-300 TON	■	■	■	■	■	■
ANSI-600 TON	■	■	■	■	■	■
ANSI-900 TON	■	■	■	■	■	■
ANSI-1500 TON	■	■	■	■	■	■



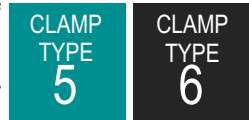
(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 30mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BOR-5M/20P**

CLAWS CLAMPING W/90° TILTABILITY

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Five station tiltable rig with Single/Double claws clamping with a floor claws clamping unit. Clamping can be performed only on flanged valves. It allows the verification of mechanical stress on flange necks during testing. Besides, the clamping force has no influence on valve seat behaviour during test, due to the absence of external forces applied. There are different pressure targets for each station. VISUAL test on valve seat during test is facilitated.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **5 x 20 TON**
- Max flange diameter : 400 mm
- Min flange diameter : 90 mm
- Flange thickness min-max : 10 - 65 mm
- Tilting angle : 0° - 90°
- Basement water vessel : 500 Liters
- Termination allowed : RF, RJ
- Clamping style : Type 5 / 6 – Claws / Double Claws
- Dimensions (mech) : 5405 (L) x 1850 (P) x 1040 (H) mm

The rig is controlled by a **SKMA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets.

**\*Working limits for SHELL TEST with CLAWS CLAMPING:**

	DN	15	20	32	40	50	80	100	125	150	200
PN-6	TON										
PN-10	TON										
PN-16	TON										
PN-25	TON										
PN-40	TON										
PN-63	TON										

\*Note: Showed data has been calculated considering SHELL TEST pressure and nominal minimum bore size ANSI + 40mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.

**BV-5V/150SH**

Multiple  
stations  
test benches

TEST AREA

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CE





**BV-3V/450**  
**BV-3V/360**  
**BV-3V/240**

INNER RADIAL SEAL (BORE PLUGS)  
 3 LOADING TRAYS

CLAMP  
 TYPE  
**2**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Independent loading trays



Vertical test rig with inner radial seal clamping style. 3 test places available for contemporary pressure tests. The screwed columns assure complete absence of external forces on valves body. This prerogative makes it compliant to the most widespread international test standards. The rig is controlled by a **SKMM-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option  
 Bunker assembly asset available as option.

	<b>BV-3V/450</b>	<b>BV-3V/360</b>	<b>BV-3V/240</b>
Reaction force (total)	<b>450 TON</b> 3x150 TON (See working limits table)	<b>360 TON</b> 3x120 TON (See working limits table)	<b>240 TON</b> 3x80 TON (See working limits table)
Valve length max	1200 mm	1000 mm	700 mm
Valve length min	150 mm	150 mm	150 mm
Center to center distance	700 mm	650 mm	580 mm
Loading height	925 mm	925 mm	1170 mm
Basement water vessel	400 Liters	400 Liters	400 Liters
Loading tray	3 independent	3 independent	3 independent
Loading tray length	400 mm	400 mm	400 mm
Terminations allowed	BW, SW, RF, RJ	BW, SW, RF, RJ	BW, SW, RF, RJ
Clamping style	Type 2 – Inner radial	Type 2 – Inner radial	Type 2 – Inner radial
Dimensions (mech)	2525(L) x 1200(D) x 2750(H) mm	2375(L) x 1200(D) x 2750(H) mm	2200(L) x 1200(D) x 2450(H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	240TON	360TON	450TON
DN	1" 2" 3" 4" 6" 8" 10" 14"		
ANSI-150 TON			
ANSI-300 TON			
ANSI-600 TON			
ANSI-900 TON			
ANSI-1500 TON			
ANSI-2500 TON			

\*Note: RIG without protection for bunker use. Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.



**BV-3V/270L**

INNER RADIAL SEAL (BORE PLUGS)  
3 LOADING TRAYS  
DIFFERENTIATED LOAD

CLAMP  
TYPE  
**2**



Vertical test rig with inner radial seal clamping style. 3 test places available for contemporary pressure test. The screwed columns assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. Different screw diameters let you extend valves range for testing (See working limits). The rig is controlled by a **SKMM-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force (total)	:	<b>270 TON</b>
		3x90 TON
		2x125 TON (Lateral)
		1x200 TON (Central)
		(See working limits table)
Valve length max	:	1200 mm
Valve length min	:	500 mm
Center to center distance	:	650 mm
Loading height	:	970 mm
Screw stroke	:	700 mm
Loading tray	:	3 independent
Loading tray length	:	400 mm
Basement water vessel	:	450 Liters
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 2 – Inner radial
Dimensions (mech)	:	2200(L) x 1200(D) x 2750(H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	4"	6"	8"	10"	12"	
ANSI-150 TON							
ANSI-300 TON							
ANSI-600 TON							
ANSI-900 TON							
ANSI-1500 TON							
ANSI-2500 TON							

[stations **1** and **3**]

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	4"	6"	8"	10"	12"	14"	16"	18"	20"	
ANSI-150 TON											
ANSI-300 TON											
ANSI-600 TON											
ANSI-900 TON											
ANSI-1500 TON											
ANSI-2500 TON											

[stations **2**]

\*Note: Showed data have been calculated considering SHELL test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BV-3V/150LP**

INNER RADIAL SEAL (BORE PLUGS)  
3 LOADING TRAYS  
DIFFERENTIATED LOAD

CLAMP  
TYPE  
**2**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Vertical test rig with inner radial seal clamping style.  
3 test places available, for contemporary pressure tests.  
The screwed columns assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.  
The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option - Bunker assembly asset available as option.

- Reaction force (total) : **150 TON**  
1 x 150 TON  
2 x 75 TON  
3 x 50 TON  
(See working limits table)
- Valve length max : 950 mm
- Valve length min : 0 mm
- Center to center distance : 450 mm
- Loading height : 1000 mm
- Loading tray length : 300 mm
- Max flange diameter : 450 mm
- Basement water vessel : 400 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Dimensions (mech) : 1860 (L) x 1250 (D) x 2750 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

		3 x 50TON			2 x 75TON			1 x 150TON					
DN		1/2"	1"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
ANSI-150	TON												
ANSI-300	TON												
ANSI-600	TON												
ANSI-900	TON												
ANSI-1500	TON												
ANSI-2500	TON												

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.





**BV-3V/150P**

INNER RADIAL SEAL (BORE PLUGS)  
3 LOADING TRAYS

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**2**



Vertical test rig with inner radial seal clamping style. 3 test places available for contemporary pressure tests. The screwed columns assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force (total) : **150 TON**  
3x50 TON  
(See working limits table)
- Valve length max : 700mm
- Valve length min : 0 mm
- Loading height : 900 mm
- Max flange diameter : 450 mm
- Basement water vessel : 250 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Inner radial
- Loading tray length : 300 mm
- Dimensions (mech) : 1860 (L) x 1250 (D) x 2750 (H) mm



Independent loading tray.

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	1/2"	1"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
ANSI-150	TON										
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BV-3CV/240SH**

COMBINED CLAMPING, INNER RADIAL SEAL  
+ PROPORTIONAL PRESSING  
3 LOADING TRAYS

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Vertical test rig with combined clamping style. It has 3 test places available with combined clamping. With the **hydraulic cylinder** (bottom side), operators can test flanged valves with proportional controlled press clamping, where the press force is automatically controlled according to the water pressure inside valves, and the result load is reduced to minimal terms. With the screwed columns you can test BW, SW termination using these inner radial seal. The combination of these two different clamping styles makes the rig suitable for all valve kinds. Each station has its own loading tray that simplifies loading procedure of Nr.3 independents units. The unit could be controlled by a **SKA-100** pressurization skid.

**!** Note: Safety perimetric protection available as option  
Bunker assembly asset available as option.

- Reaction force(total) : **240 TON** (10% minimum press clamping)  
3x80 TON  
(See working limits table)
- Valve length max : 1000 mm
- Valve length min : 150 mm
- Loading height : 1100 mm
- Distance between places : 580 mm
- Basement water vessel : 400 Liters
- Terminations allowed : RF, RJ, BW, SW
- Clamping type : Type 3 - Combined
- Clamping force control : Automatic within 5..100% interval, proportional to the hydrostatic pressure inside the valve under test. Regulation can be controlled by the operator
- Loading tray length : 500 mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

ANSI-150 TON	DN	1/2"	1"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"
ANSI-150 TON												
ANSI-300 TON												
ANSI-600 TON												
ANSI-900 TON												
ANSI-1500 TON												
ANSI-2500 TON												



Optional quick clamping for screwed ports valves.

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only.  
Press clamping style limits are based on bore size increased by **50 mm**.  
For more accurate information please contact our technical department or consult the instructions book delivered along the rig.



**BV-5V/150SH**

INNER RADIAL SEAL (BORE PLUGS)  
5 LOADING TRAYS

CLAMP  
TYPE  
**2**



Vertical test rig with inner radial seal clamping style. 5 test places available for multiple pressure test. The screwed columns assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option. Bunker assembly asset available as option.

- Reaction force (total) : **150 TON**
- : 5 x 30 TON
- Length max : 700 mm
- Length min : 200 mm
- Center to center distance : 580 mm
- Loading height : 1200 mm
- Basement water vessel : 400 Liters ca.
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Bore Plugs
- Dimensions (mech) : 3280 (L) x 1250 (D) x 2750 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	1"	2"	3"	4"	6"	8"	10"	12"
ANSI-150	TON								
ANSI-300	TON								
ANSI-600	TON								
ANSI-900	TON								
ANSI-1500	TON								
ANSI-2500	TON								

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BV-5CV/100P**

COMBINED CLAMPING, INNER RADIAL SEAL  
+ PROPORTIONAL PRESSING  
5 LOADING TRAYS

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Vertical test rig with combined clamping style. It has 5 test places with combined clamping. With the hydraulic cylinder (bottom side), operators can test flanged valves with proportional controlled press clamping, where the press force is automatically controlled according to the water pressure inside the valve, and the result load is reduced to minimal terms. With the screwed columns it can test BW, SW terminations using the inner radial seal. The combination of these two different clamping styles makes the rig suitable for all valve kinds. The unit could be controlled by a **SKA-100** pressurization skid.

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **100 TON** (10% minimum press clamping)  
5x20 TON (See working limits tables).
- Valve length max : 500 mm
- Valve length min : 50 mm
- Center to center distance : 300 mm
- Loading height : 1000 mm
- Basement water vessel : 200 Liters
- Terminations allowed : RF, RJ, BW, SW
- Clamping type : Type 3 - Combined
- Clamping force control : Automatic within 5..100% interval, proportional to the hydrostatic pressure inside the valve under test. Regulation can be controlled by the operator.
- Dimensions (mech) : 2106 (L) x 1420 (D) x 2536 (H) mm (skid not included)



**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

DN	1/2"	1"	2"	2 1/2"	3"	4"	5"	6"
ANSI-150 TON								
ANSI-300 TON								
ANSI-600 TON								
ANSI-900 TON								
ANSI-1500 TON								
ANSI-2500 TON								

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. Press clamping style limits are based on bore size increased by 50 mm. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.



**BV-CC3V/60SH**

INNER RADIAL SEAL (BORE PLUGS) OR P.E.A. ADAPTORS W/AUTOMATIC 1/4 TURN VALVE ACTUATOR

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

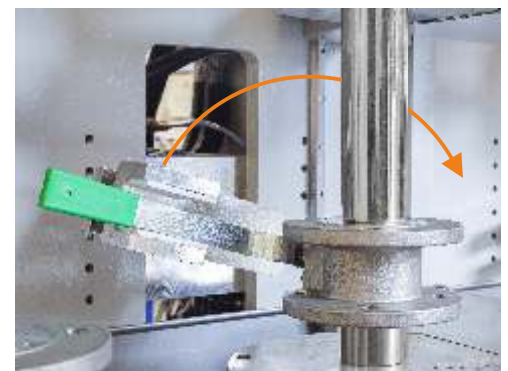


Three station vertical test bench with combined "Bore plugs" clamping. Valve length adjustment is performed by an upper side screwed column moved by a hydraulic gear. This assures complete absence of external forces on valve body. Automatic 1/4 turn actuators are included to operate the valve during test procedures and to perform endurance tests. Operator safety is granted by full surrounding protection guarding with bullet-proof crystal to offer perfect visual inspection. The opening of the guarding is ruled by a control system to reduce operator risk exposure to minimum terms. Test process is controlled by a PLC & LCD touchscreen.



**!** Note: Lifter trolleys and Safety perimetric protection available as option  
Bunker or Pit assembly asset available as option.

- Reaction force (total) : **60 TON**  
3 x 20 TON  
(See working limits table)
- Valve length max : 460 mm
- Valve length min : 50 mm
- Max flange diameter : 300 mm
- Loading height from the ground : 1100 mm
- Actuator torque : 120 Kgm
- Actuator angle : -15° / +75°
- Basement water vessel : 400 Liters
- Terminations allowed : RF, RTJ, BW, SW
- Clamping style : Type 2 Bore Plugs - Type 7 P.E.A.
- Dimensions (mech) : 2366 (L) x 1105 (D) x 2500 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	1/2"	1"	2"	3"	4"	6"
ANSI-150	TON						
ANSI-300	TON						
ANSI-600	TON						
ANSI-900	TON						
ANSI-1500	TON						
ANSI-2500	TON						

\*Note: Showed data has been calculated considering SHELL TEST pressure and nominal minimum bore size ANSI. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.



**BV-3CV/60P**

COMBINED CLAMPING  
W/PROPORTIONAL PRESSING CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



Three test station vertical test bench with combined clamping. Valve length adjustment is performed by an upper side screwed column moved by an hydraulic gear. This assures the complete absence of external forces on valve body in case of bore plugs clamping. On the bottom side a proportionally controlled pressing cylinder makes face-to-face sealing available. This asset makes the test bench compliant to the most widespread testing standards. Operator safety is granted by full surrounding protection guarding with bullet-proof crystal to offer perfect visual inspection. The opening of guarding is ruled by a control system to reduce operator risk exposure to minimum terms. Test process is controlled by a **SKA-100** pressurization SKID.

**!** Note: Assembly example with full surrounding protection guarding

- Reaction force : **3 x 20 TON**  
(See working limits table)
- Valve length max : 500 mm
- Valve length min : 0 mm
- Max flange diameter : 350 mm
- Loading height from the ground : 850 mm
- Terminations allowed : RF, RTJ, BW, SW
- Clamping style : Type 3 –Combined
- Dimensions (mech) : 1950 (L) x 1400 (D) x 2400 (H) mm



**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1/2"	1"	2"	3"	4"
ANSI-150	TON					
ANSI-300	TON					
ANSI-600	TON					
ANSI-900	TON					
ANSI-1500	TON					
ANSI-2500	TON					

\*Note: Showed data has been calculated considering SHELL TEST pressure and nominal minimum bore size ANSI + 30mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.



**BV-2CV/60SH**

COMBINED CLAMPING  
W/PROPORTIONAL PRESSING CONTROL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**3**



**!** Note: Assembly example with full surrounding protection guarding

Reaction force	:	<b>2 x 30 TON</b> (See working limits table)
Valve length max	:	600 mm
Valve length min	:	90 mm
Max flange diameter	:	400 mm
Loading height from soil	:	1150 mm
Terminations allowed	:	RF, RTJ, BW, SW
Clamping style	:	Type 3 –Combined
Dimensions (mech)	:	1270 (L) x 1530 (D) x 2347 / 2758 (H) mm

Double test station vertical test bench with combined clamping. Valve length adjustment is performed by the upper side screwed column moved by an hydraulic gear.

This assures complete absence of external forces on the valve body in case of bore plugs clamping.

On the bottom side a proportionally controlled pressing cylinder offers face-to-face sealing.

This asset makes this test bench compliant to the most widespread testing standards. Operator safety is granted by full surrounding protection guarding with bullet-proof crystal to offer perfect visual inspection. The opening of the fence is ruled by control system to reduce operator risk exposure to minimum terms. The test process is controlled by a **SKA-100** pressurization SKID.



Bullet proof fairing

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

ANSI	TON	DN	1/2"	1"	2"	3"	4"	6"
ANSI-150	TON							
ANSI-300	TON							
ANSI-600	TON							
ANSI-900	TON							
ANSI-1500	TON							
ANSI-2500	TON							



\*Note: Showed data has been calculated considering SHELL TEST pressure and nominal minimum bore size ANSI + 30mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.



**BV-3V/30SH**

INNER RADIAL SEAL (BORE PLUGS) 3 TEST PLACES WITH AUTOMATIC 1/4" TURN VALVE ACTUATOR

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP TYPE 2

bullet-proof frontal protection with automatic vertical movement



Vertical test rig with inner radial seal clamping style. 5 test places available, for multiple pressure test. The screwed columns assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. Upper side screws are moved manually by the operators. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option  
Bunker assembly asset available as option.

- Reaction force : **3 x 10 TON** (10% minimum press clamping)
- Valve length max : 340 mm
- Valve length min : 50 mm
- Center to center distance : 300 mm
- Max flange diameter : 300 mm
- Loading height : 1000 mm
- Basement water vessel : 100 Liters ca.
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 2 – Bore Plugs
- Dimensions (mech) : 1200 (L) x 1490 (D) x 1950/2305 (H) mm



Option for automatic 1/4 turn valve actuator.

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	1/2"	1"	1 1/2"	2"	3"	4"
ANSI-150	TON						
ANSI-300	TON						
ANSI-600	TON						
ANSI-900	TON						
ANSI-1500	TON						
ANSI-2500	TON						

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size. For further details please contact our technical department.





**BV-5MV/20**

UNIVERSAL CLAMPING

CLAMP  
TYPE  
**4**



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

Reaction force	:	<b>5 x 20 TON</b>
Length max	:	340 mm
Length min	:	50 mm
Max flange diameter	:	300 mm
Basement water vessel	:	100 Liters ca.
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 2 – Bore plugs
Dimensions (mech)	:	1200 (L) x 1490 (D) x 1950/2305 (H) mm

Vertical test rig with universal clamping style:

- Claws on RF/RJ valves
- Press clamping
- Inner radial seal.

5 test places available for multiple pressure tests.

The screwed columns assure complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards. The upper side reaction bridge can be removed with a 90° rotation flag style. In this way loading procedures are easier. Water recovering is automatic even for check valves.

A device to open check valves is available on request. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.



**\* Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	50	100	125	150	200
PN-10	TON					
PN-16	TON					
PN-25	TON					
PN-40	TON					
PN-64	TON					
PN-100	TON					

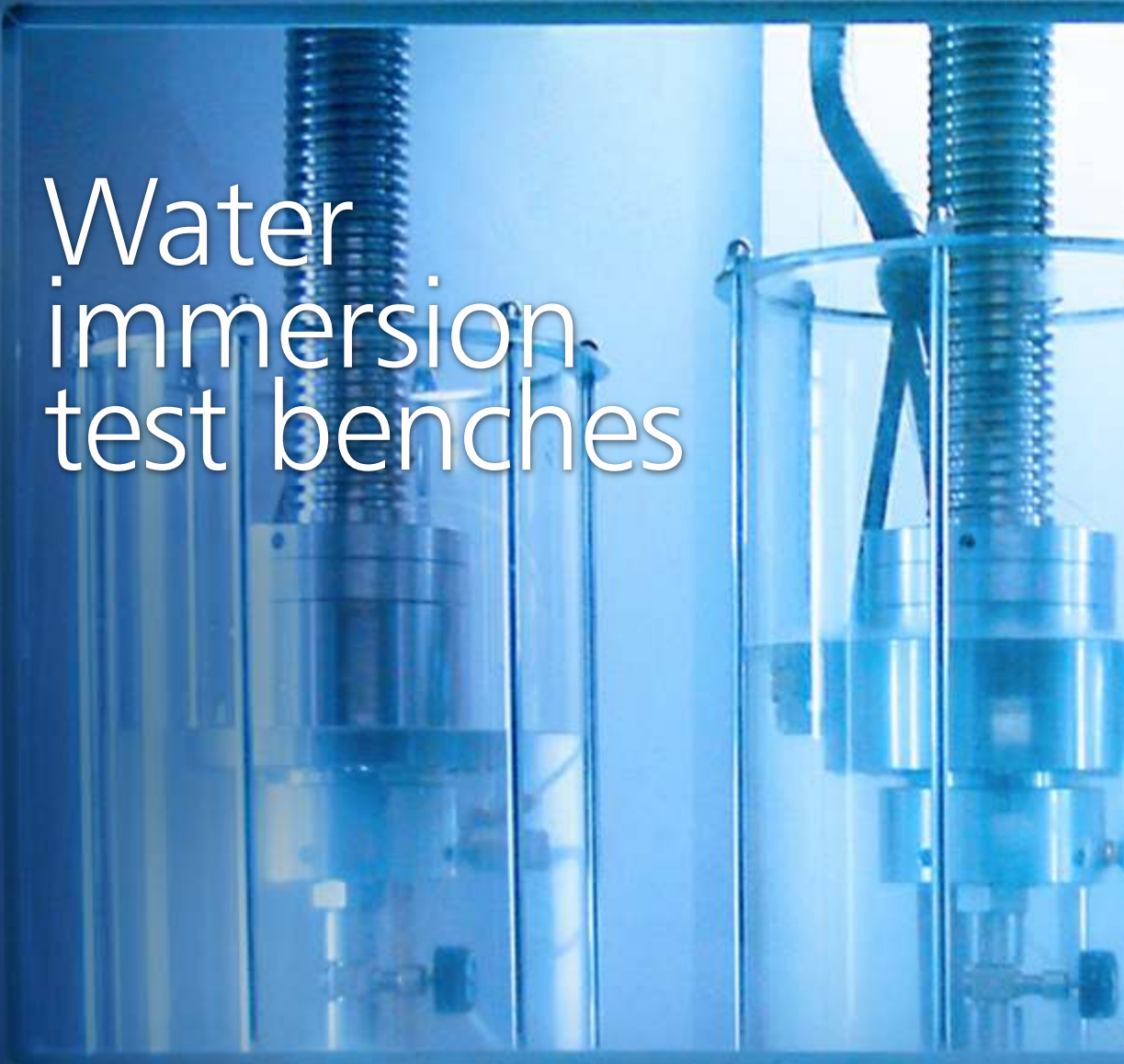
(\*Note: Indicated values have been calculated for shell test and with nominal minimum bore size + 30mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BVI-3CV/60**

**think'PC PROGETTI**

Water  
immersion  
test benches

The image shows two industrial water immersion test benches, model BVI-3CV/60, housed within a blue cabinet. The benches are constructed from polished metal and feature a vertical threaded rod with a cylindrical test chamber at the bottom. The entire assembly is supported by a metal frame. The scene is lit with a cool blue light, creating a professional and technical atmosphere.





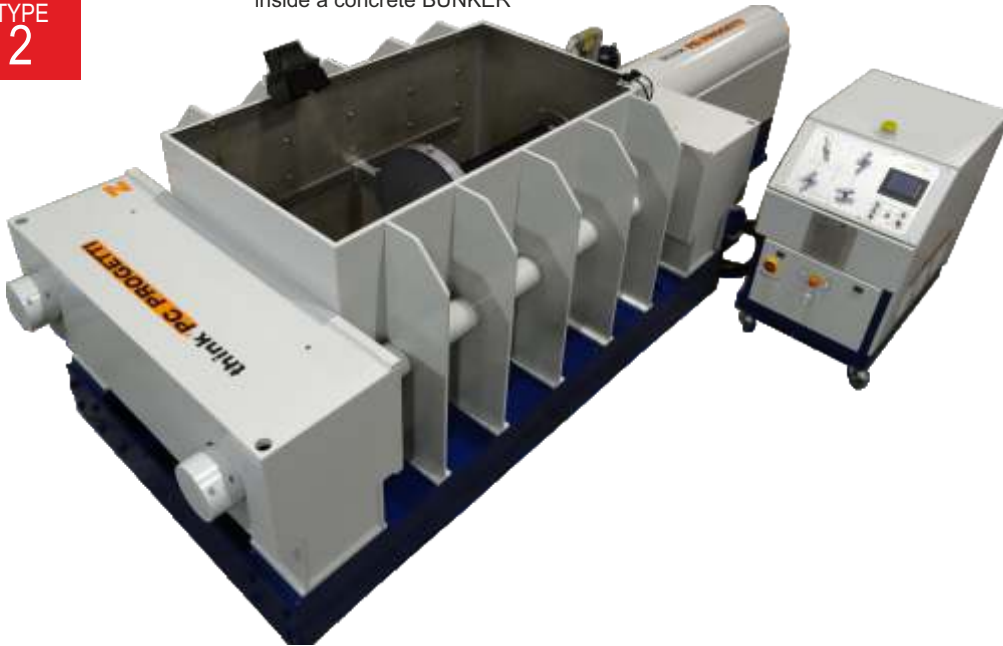
**BOI-V/450**  
**BOI-V/250**

HORIZONTAL LOADING  
INNER RADIAL SEALS (BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**2**

Version to be installed  
inside a concrete BUNKER



Horizontal test rig with inner radial seal clamping style. The mobile reaction bridge is moved by one screwed column that assures complete absence of external forces on valve body. This prerogative makes it compliant to the most widespread international test standards.

A vessel around the valve can be filled with water to visually check external leakages under GAS tests. The rig is controlled by a **SKMM/GAS** pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories, please contact our sales office to have more information.

**!** Note: Safety perimetric protection available as option  
Bunker assembly asset available as option.

Reaction force	: <b>450 TON</b> (See working limits table)	<b>250 TON</b> (See working limits table)
Valve length max	: 1550 mm	1550 mm
Valve length min	: 150 mm	150 mm
Column inner clearance	: 1150 mm	1150 mm
Flow axes height	: 868 mm (height of flow axes from the ground)	868 mm (height of flow axes from the ground)
Vessel inner dimension	: 1930 (L) x 1065 (D) x 1100 (H) mm	1930 (L) x 1065 (D) x 1100 (H) mm
Vessel capacity	: 2260 Liters	2260 Liters
Filling/ recovering pumps	: 500 Liters/min (1000 Liters/min optional)	500 Liters/min (1000 Liters/min optional)
Terminations allowed	: BW, SW, RF, RJ	BW, SW, RF, RJ
Clamping style	: Type 2 – Inner radial	Type 2 – Inner radial
Dimensions (mech)	: 4750 (L) x 1690 (D) x 1415 (H) mm	4500 (L) x 1690 (D) x 1415 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

DN	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
ANSI-150 TON												
ANSI-300 TON												
ANSI-600 TON												
ANSI-900 TON												
ANSI-1500 TON												
ANSI-2500 TON												
ANSI-4500 TON												



Option for pit installation

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instruction book delivered along the rig.



**BVI-3CV/60**

VERTICAL LOADING,  
COMBINED CLAMPING - DOUBLE MEDIA (GAS + H<sub>2</sub>O)  
PROPORTIONAL PRESS CONTROL CYLINDER + SCREW

CLAMP  
TYPE  
**3**



3 station vertical test rig with clamping style Nr.3 combined. Each test place has the possibility to perform GAS tests under water having independent water vessels hydraulically moved. Each water vessel has a temperature control system to set up water temperature of 40°. Proportional control of pressing clamp is available as well; the press force is controlled automatically according to the water pressure inside the valve, and the result load is reduced to minimal terms. Armored steel protection with bullet proof glass guarantees the highest safety level for operators, and the best view for under water bubbles leak catching. The rig is controlled by a **SKA-100** pressurization skid; to have more information about it please consult dedicate technical data sheet. The rig could be completed with several options and accessories, please contact our sales office to have more information.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **60 TON**  
3x20 TON/screw (10% minimum press clamping)  
(See working limits tables).
- Valve length max : 500 mm
- Valve length min : 0 mm
- Distance between places : 400 mm
- Water immersion vessel : D. 290mm x 550H
- Water heating : Automatic 20-40°C
- Terminations allowed : RF, RJ, BW, SW
- Clamping type : Type 3 - Combined
- Clamping force control : Automatic within 5..100% interval, proportional to the hydrostatic pressure inside the valve under test.  
Reg. gain controlled by the operator
- Dimensions (mech) : 1960 (L) x 1040 (D) x 2640 (H) mm /2950 (H) mm MAX



Proportional press clamping available only with hydro test.

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1/2"	1"	2"	2 1/2"	3"	4"
ANSI-150	TON						
ANSI-300	TON						
ANSI-600	TON						
ANSI-900	TON						
ANSI-1500	TON						
ANSI-2500	TON						

(\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size + 20mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



**BVI-PMV/100P**

VERTICAL LOADING, INNER RADIAL SEALS  
(BORE PLUGS)

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**2**



Water immersion Gas test rig. It has been designed to discover bubble leakages in valves casting. A water vessel is vertically moved in order to save testing time. A clamping system will let the operator place valves directly on testing position. An armored fairing system ensures operator safety in case of components ejection.

**!** Note: Safety perimetric protection available as option. Bunker assembly asset available as option.

- Reaction force : **100 TON**
- Valve length max : 1000 mm
- Valve length min : 200 mm
- Clearance between columns : 1000 mm
- Vessel dimension : 750 (L) x 750 (D) x 1000 (H) mm
- Water vessel : 562 Liters
- Clamping style : Type 2: Inner radial seal
- Dimensions (mech) : 1150 (L) x 1900 (D) x 2810 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	1/2"	1"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"
ANSI-150	TON												
ANSI-300	TON												
ANSI-600	TON												
ANSI-900	TON												
ANSI-1500	TON												
ANSI-2500	TON												

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



**BVI-V/20**

**VERTICAL LOADING, INNER RADIAL SEALS  
(BORE PLUGS)**

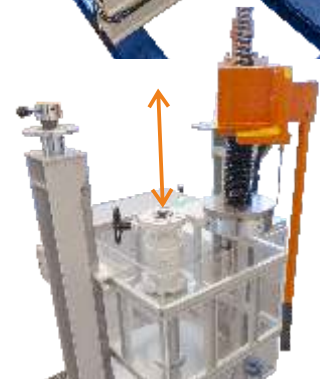
**CLAMP  
TYPE  
2**



Version to be installed inside a BUNKER



Water immersion air test rig. It has been designed to discover bubbles leakages in valves casting. A water vessel is vertically moved in order to save testing time. A clamping system will let the operator place valves directly on testing position.



**!** Note: Safety perimetric protection available as option - Bunker or Pit assembly asset available as option.

- Reaction force : **20 TON**
- Valve length max : 610 mm
- Valve length min : 200 mm
- Clearance between columns : 800 mm
- Water immersion vessel : 690 (L) x 1200 (D) x 790 (H) mm vertical movement
- Clamping style : Type 2: Inner radial seal
- Dimensions (mech) : 1550 (L) x 1980 (D) x 2480 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL**

	DN	1/2"	1"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
ANSI-150	TON										
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										

\*Note: Showed data have been calculated considering Shell test pressure and nominal bore size according to API-6D. For further details please contact our technical department.



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**BV-M/90SH**

# PSV PRV PVSV test benches

Test rigs for pressure safety valves (PSV), pressure relief valves (PRV) and breather valves (PVSV), have three main prerogatives:

- Clamping is performed by claws which have the benefit of avoiding mechanical effort on valves body, and mechanical strength can be applied in the same way of a real application in order to verify the resistance of mechanical designs of flanged ends.
- Pressurization can be supported by adequate volume vessels able to "supply" enough discharge flow to verify correct seat lift and blow down ability of the components under test.
- Full Surrounding bullet proof protection fairing (roof installed) will ensure best operators safety level.

Rigs described in these pages are available for both media water & GAS (Nitrogen/Air) with different styles of claws clamping: manual fixing, manual auto-centering, hydraulic auto-centering.

Standard rigs are available up to 24" flanged valves, with different nominal loads as indicated in working limits tables. Different size range is available on request, as well as tiltability design even for large size ranges.

Several process options can be selected to make performance and leakage test procedures according to API standards rules.

Electrical & pneumatic driven compressors are available for GAS supply.

A dedicated software package **TestREC-PSV** is available to collect test data, store them in test database and to print out complete certification of valve performance (Simmer points, Pop pressure, Re-Seat pressure, Blow down, Seat Lift measure & Leak rate).





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**BV-M/90SH**

**CLAWS CLAMPING  
WITH FULL SURROUNDING FAIRING SYSTEM**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**5**

Automatic frontal access  
door vertically moved

Automatic opening roof  
horizontally moved



Test rig with claws clamping. Test of RF or RTJ valves could be executed in real working conditions. The clamping is of hydraulic on/off type. This prerogative makes it suitable for PSV valves and for flow valves. The auto-centering movement of claws and tilting is hydraulically or pneumatically controlled (as option). In the basement there is a vessel for test fluid and additional vessels are available. Full Surrounding **bullet proof** protection fairing (roof included) will ensure best operators safety level. It can be controlled by a standard pressurization skid; in the picture you can see mod. **SKMA-100-GAS**

**!** Note: Test bench can be equipped with pressure vacuum safety valve (PVSV) testing facilities as option

- Reaction force : **90 TON**  
(See working limits table)
- Flange max diameter : 530 / 650 / 860mm
- Flange min diameter : 150 mm
- Seat lift measure contact less : 0-150 mm ± 0.15%
- Flange thickness max : 140 mm
- Loading height : 1200 mm
- Tilting angle : FIXED (not tiltable)
- Basement water vessel : 200 Liters
- Terminations allowed : RF, RJ
- Clamp type : Type 5 - Hydraulic cylinder w/claws
- Clamping force control : On/Off type, Range 5..100 %
- Reference standard : ISO, API, ASME, ASTM
- Dimensions (mech) : 1465(L) x 2100(D) x 1900(H) mm

**\*Working limits with CLAWS CLAMPING**

DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
bar	700	700	678	510	287	183	127	94	65	52

\*Note: Showed data has been calculated considering nominal minimum bore size ANSI + 50mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.





**BV-M/60P**

CLAWS CLAMPING WITH FULL PERIMETER PROTECTION

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

CLAMP  
TYPE  
**5**

Front / Back access door  
vertically moved



Test rig with claws clamping. Test on RF or RTJ valves could be executed in real working conditions. The clamping is of hydraulic on/off type. This prerogative makes it suitable for PSV valves and for flow valves. The auto-centering movement of claws is hydraulically or pneumatically controlled (as option). Perimeter protection fairing will ensure operator safety; double access side is foreseen to get access to inner area (Front & Rear). It can be controlled by a SKMM or SKMA class pressurization skid.

**!** Note: Test bench can be equipped with pressure vacuum safety valve (PVSV) testing facilities as option

- Reaction force : **60 TON**
- Working stands : 1 (two on request)
- Flange max diameter : 530 / 650mm
- Flange min diameter : 90 mm
- Seat lift measure contact less : 0-150 mm ± 0.15%
- Flange thickness max : 100 mm
- Tilting angle : Fixed (not tiltable)
- Basement water vessel : 200 Liters
- Termination allowed : RF, RJ
- Clamping style : Type 5 - Hydraulic cylinder w/claws
- Clamping force control : On/Off type, Range 10..100 %
- Reference standard : ISO, API, ASME, ASTM
- Dimensions (mech) : 1744(L) x 1500(D) x 1865(H) mm



**\*Working limits with CLAWS CLAMPING**

DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
bar	700	700	452	340	191	122	85	62	43	35

\*Note: Showed data has been calculated considering nominal minimum bore size ANSI + 50mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified. .



**BVR-M/90**

CLAWS CLAMPING  
WITH PROTECTION PERIMETER  
AND 90° TILTABILITY

CLAMP  
TYPE  
**5**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Test rig with claws clamping. Test of RF or RTJ valves could be executed in real working conditions. The clamping is of hydraulic on/off type. This prerogative makes it suitable for PSV valves and for flow valves. The auto-centering movement of claws and tilting is hydraulically or pneumatically controlled (as option). In the basement there is a vessel for test fluid and additional vessels are available. The tilting ability of clamping plateau improves product loading capability, and allows the bullet proof protection fairing (roof include) to ensure best operator safety level. It can be controlled by a standard pressurization skid; in the picture you can see mod. **SKMM-100-G**

**!** Note: Test bench can be equipped with pressure vacuum safety valve (PVSV) testing facilities as option

- Reaction force : **90 TON**  
(See working limits table)
- Flange max diameter : 530 / 650 / 860mm
- Flange min diameter : 90 mm
- Seat lift measure : 0-100 mm
- Contact less : 0-70 mm ± 0,05 mm
- Flange thickness max : 140mm
- Tilt angle : 0° + 90°
- Basement water vessel : 200 Liters
- Terminations allowed : RF, RJ
- Clamp type : Type 5 - Hydraulic cylinder w/claws
- Clamping force control : On/Off type
- Range : 10..100%
- Reference standard : ISO, API, ASME, ASTM
- Dimensions (mech) : 1465(L) x 2100(D) x 1900(H) mm

**\*Working limits with CLAWS CLAMPING**

DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
bar	700	700	678	510	287	183	127	94	65	52

\*Note: Showed data has been calculated considering nominal minimum bore size ANSI + 50mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified. .

**BV-M/60**

## HIDRAULIC AND PNEUMATIC TEST BENCHES FOR PSV VALVES

CLAMP  
TYPE  
**5**



Test rig with claws clamping. Test of RF or RTJ valves could be executed in real working conditions. The clamping is of hydraulic on/off type. This prerogative makes it suitable for PSV valves and for flow valves. The auto-centering movement of claws and tilting is hydraulically or pneumatically controlled (as option). In the basement there is a vessel for test fluid and additional vessels are available. It can be controlled by a standard pressurization skid; in the picture you can see mod. **SKMM-100-G**. Asset for custom bunker assembly.

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

**!** Note: Test bench can be equipped with pressure vacuum safety valve (PVSV) testing facilities as option. Bunker asset assembly example.

Reaction force	:	<b>60 TON</b> (See working limits table)
Flange max diameter	:	530 / 650 / 860mm
Flange min diameter	:	90 mm
Seat lift measure	:	0-100 mm
Contact less	:	0-70 mm $\pm$ 0,05 mm
Flange thickness max	:	90 mm
Tilting angle	:	FIXED (not tiltable)
Basement water vessel	:	200 Liters
Terminations allowed	:	RF, RJ
Clamp type	:	Hydraulic cylinder w/claws
Clamping force control	:	On/Off type
Range	:	10..100 %
Electrical supply	:	3PH + T400V@50Hz, 2KW
Dimensions (mech)	:	1250 (L) x 700 (D) x 1250 (H) mm

### ★Working limits with CLAWS CLAMPING

DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
bar	700	700	452	340	191	122	85	62	43	35

\*Note: Showed data has been calculated considering nominal minimum bore size ANSI + 50mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified. .





## SKMM-100/PSV

## HIDRAULIC AND PNEUMATIC TEST BENCHES FOR PSV VALVES

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**5**



Pressurization skid dedicated to small size PSV calibration procedures. It has a water reservoir inside the cabinet in order to be independent during tests performance. A fine regulation for water or gas pressurization completes the standard furniture. "T" bolts guide for manual claws clamping is foreseen. An armoured full surroundings fairings system ensures operator safety (flag or vertical opening).

**!** Note: Test bench can be equipped with pressure vacuum safety valve (PVSV) testing facilities as option

Reaction force	:	<b>10 TON</b> (See working limits table)
Flange max diameter	:	300 mm
Flange min diameter	:	90 mm
Seat lift measure	:	0-100 mm
Contact less	:	0-70 mm ± 0,05 mm
Flange thickness max	:	40 mm
Tilting angle	:	FIXED (not tiltable)
Terminations allowed	:	RF, RJ
Clamping force control	:	Type 5 DIN T-Bolts
Reference standard	:	ISO, API, ASME, ASTM
Pneumatic supply	:	6.5 bar @ 1100 NI/min Dry air not lubricated
Electrical supply	:	3PH + G 380V@50Hz, 2KW
Dimensions (mech)	:	700 (L) x 1250 (P) x 1900 (H) mm



### \*Working limits with CLAWS CLAMPING

DN	1"	2"	3"	4"
bar	226	127	75	56

\*Note: Showed data has been calculated considering nominal minimum bore size ANSI + 50mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified. .



## SKMA-100/PSV-2 HYDRAULIC AND PNEUMATIC PRESSURIZATION SKID FOR PSV VALVES

CLAMP  
TYPE  
**5**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Pressurization skid dedicated to small size PSV calibration procedures. It is controlled by a PLC and a touch screen LCD terminal. It has a dedicated software for set-point, pop and reseal pressure value. It has a water reservoir inside the cabinet in order to be independent during tests performance. A fine regulation for water or gas pressurization completes the standard furniture.

There is a claws concentric movement manually operated (hydraulic as option) to facilitate the clamping procedure. An armoured full surroundings fairings system ensures operator safety (flag or vertical opening).

Reaction force	:	<b>20 TON</b> (See working limits table)
Flange max diameter	:	400 mm
Flange min diameter	:	90 mm
Seat lift measure	:	0-100 mm
Contact less	:	0-70 mm ± 0,05 mm
Flange thickness	:	Max 65 mm
Terminations allowed	:	RF, RJ
Clamping force control	:	Type 5 On/Off style - Hydraulic
Reference standard	:	ISO-API-ASME-ASTM
Pneumatic supply	:	6.5 bar @ 1100 NI/min Dry air not lubricated
Electrical supply	:	3PH + G 380V@50Hz, 5.5KW
Dimensions (mech)	:	1100 (L) x 1250 (D) x 2150 (H) mm



### ★Working limits with CLAWS CLAMPING

DN	1/2"	1"	2"	3"	4"	6"	8"
bar	1410	842	388	222	146	76	46

\*Note: Showed data has been calculated considering nominal minimum bore size ANSI + 50mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified. .

CB 1000

# Cryogenic & Helium microleakage test benches

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## SKMA-100/CRYO CRYOGENIC TEST GAS PRESSURIZATION SKID



Helium pressurization skid dedicated to cryogenic temperature leakage tests. Local instrumentation about 5 temperatures inside test vessel is included. Test is performed as requested by BS-6364 standard. A Serial interface channel allows the user to connect a personal computer to **TestREC-CRYO** certification software installed.

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Max Working pressure He	: 1050 bar
Min Working pressure He	: 20 bar
GAS Booster opt	: 150:1
Process valve	: "Metal to metal" needle valve & "soft seat" bypass valve
Process style	: Bidirectional
HP Fluid allowed	: Helium (He)
Control system	: Manual valve & Electrical lighted pushbuttons installed on graphical synoptic panel
Pressure measure	: 4-20mA Pressure transmitter+7-seg Digital Display
Temperature measure	: N°5 Temperature sensor
Ref. Standard	: BS-6364 (CRYO TEST)
Serial Interface	: RS-485 MODBUS PROTOCOL
Certification software	: TestREC - CRYO
Seat leakage detection GAS	: Volumetric bubbler
Process Connections	: MP 1/4"
Service air supply	: 7bar @ 2000 Liters/min Other available on request
Electrical supply	: 2Ph+T 220V@50Hz 1KW Other available on request
Dimensions (mech)	: 700 (L) x 1120 (D) x 1120 (H) mm



**SKMM-50/TC +CV** MOVABLE CRYOGENIC TEST VESSEL WITH TEMPERATURE CONTROL PANEL

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Evaporation fumes recovering perimeter



Cryogenic test vessel is now available with a temperature control panel.  
 On – off style temperature control is able to fix cryogenic bath temperature in the range of 0 / -196 °C.  
 Nr.5 temperatures transmitters are installed: 1 for bath temperature, 4 for customized applications.  
 All temperature signals are connected to the certification software **TestREC-CRYO**

- Temperature control : Digital On/Off style
- Temperature measure : Nr. 4 PT100
- Temperature range : -196°C / +150°C
- Exhaust Vapours trap : Included
- Cryo Vessel Inner Dimensions : **CB-350** 350 Liters - 1000 (L) x 500 (D) x 700 (H) mm  
**CB-1000** 1070 Liters - 1500 (L) x 750 (D) x 950 (H) mm  
**CB-3000** 3000 Liters - 2000 (L) x 1000 (D) x 1500 (H) mm





## BV-5C-He/10

### 5-WAY AUTOMATIC PRESS CLAMPING HIGH VACUUM MICROLEAKAGE GAS TEST

CLAMP  
TYPE  
1



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Vertical test bench with press clamping system for 5 valves ports (included inner seat). It is able to perform Helium microleakage test on natural gas pressure reducer casting body. Helium test is performed by pressurizing the casting at low pressure (5 bar abs) under high vacuum chamber. The rig is able to catch leakages visible by high pressure gas test with soap bubbles detections. This prerogative allows the customers to reduce operational risk avoiding expensive gas tests bunkers. The rig is controlled by a **SKA-100/He** pressurization SKID. Please read dedicated data sheets for further information.

Reaction force	:	<b>10 TON</b>
Products allowed	:	Natural GAS pressure reducer Range 1/2"-3" (DN15-DN80)
Valve length max	:	400 mm
Valve length min	:	140 mm
Height max	:	400 mm
Height min	:	140 mm
Terminations allowed	:	BW, RJ
Clamping style	:	Type 1 – Press Clamping 5 ways Inlet Outlet Top Bottom Inner SEAT
Electric supply	:	3PH + T, 380V@50Hz, 10KW
Dimensions (mech)	:	3500 (L) x 2500 (D) x 2200 (H) mm



5 way clamping



## BV-C-He/30

### PRESS CLAMPING HIGH VACUUM MICROLEAKAGE GAS TEST

CLAMP  
TYPE  
1



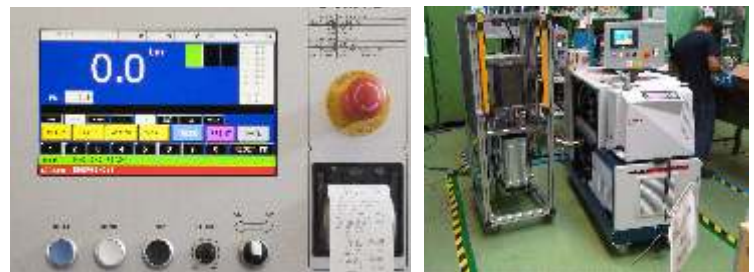
Vertical test with a press clamping system. It is able to perform Helium microleakage test. Helium test is performed by pressurizing the valve at 1050 bar under a high vacuum chamber. The rig is able to catch leakages visible by high pressure gas test with soap bubbles detection (white spot). An armored fairing system ensures operator safety. The rig is controlled by a SKA-100/He pressurization SKID. Please read dedicated data sheets for further information.

Reaction force	: 30 TON (10% minimum press clamping)
Products allowed	: High pressure Valve / Fittings
Range	: 1/4" - 1"
Valve length max	: 200 mm
Valve length min	: 40 mm
Clamping style	: Type 1 – Press Clamping
Electric supply	: 3PH + T, 380V@50Hz, 10KW
Dimensions (mech)	: 1400 (L) x 880 (D) x 3000 (H) mm

## SKA-100/He



SKID for micro-leakage HELIUM tests for castings. It has been designed to control full automatic clamping rigs based on overpressure leak tests of "Integral Method – Vacuum Hood Test". Casting is pressurized at low pressure with helium (5 bar abs) and a vacuum chamber which is evacuated by an auxiliary pump and which is connected to a leak detector (spectrometer) is used as the hood. The search of escaping gas through leaks is converted in electrical signals which are immediately displayed. This method allows the detection of very small leaks and is especially suited for automatic industrial leak detection. The skid includes a pre-test with air pressure drops to verify the absence of macro-leakages and an evacuation service pump to remove air from test pieces and recover helium (option).



High vacuum Pump (Vaccum Hood)	: 75 m <sup>3</sup> /h @ 5x10 <sup>-3</sup> mbar MAX
Service vacuum pump	: 40 m <sup>3</sup> /h @ 0.5 mbar
Max working pressure	: 1050 bar
Smallest detectable leak	: 1 x 10 <sup>-7</sup> mbar l s <sup>-1</sup> (other on request)
Electric supply	: 3PH + T, 400V@50Hz, 10KW
Dimensions (mech)	: 600 (L) x 1300 (D) x 1700 (H) mm



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**LAB-40**

# LAB Mobile workshop for valve repairs and tests

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**LAB-10**  
**LAB-20**  
**LAB-40**

MOBILE WORKSHOPS FOR  
VALVE TEST & REPAIR

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)




Workshop unit built into a 10/20/40 feet container.

Mobile valve repairing workshop equipped with a complete tools set to repair & test valves onsite.

The unit makes all supply lines available (electrical & pneumatic) for a complete mechanical workshop.

Generators are installed in a separate container area, accessible from outside, separated from workshop area. It has 160x160 H-Beam structure, about 1 Ton capacity overhead crane with sliding beam running on a containers full length. A swing out crane installed on the entrance door ensures best access to the equipment. Here follows all the available equipment inside the workshops:

- Electrical Power Generator : Diesel Engine generator, Silent type  
380/220V 50Hz, 33KW  
3PH & 2PH power sockets (4x)
- Compressed air Generator : Electrical compressor  
Air Flow : 1400NL  
Max output pressure : 10 bar  
Power Supply : 400V-50Hz, 11 KW  
Air Reservoir : 300 l Vertical design.  
Refrigeration air dryer included
- Air conditioning equipment : 100m³/h with Hyper Filter system
- Mechanical equipment installed : Compact floor drill  
Universal Center lathe machine  
Bench Grinder with Stand  
Electrical Hoist (1 TON)  
Adjustable torque wrenches.  
Impact drill machine Electric driven  
Straight grinder  
Mechanical Bench vice 8"  
Complete tools set for industrial maintenance.  
Universal workbenches  
Swing doors cabinets
- Lifting Equipments : Over Head travelling crane 1 Ton capacity  
Swing Crane with 2m swing out arm 1 Ton capacity.
- Non destructive test equipment : Magnetic particle inspection (MT) - Liquid Penetrants (PT)
- Version  : Available on request (zone II )







		<b>LAB-10</b>	<b>LAB-20</b>	<b>LAB-40</b>
Electrical Power generator		NONE	NONE	Diesel Engine generator, Silent type 400V 50Hz, 45KWA 3PH & 2PH power sockets.
<b>ELECTRICAL panel &amp; LIGHTING</b>		<b>INCLUDED</b>	<b>INCLUDED</b>	<b>INCLUDED</b>
Compressed air generator		NONE	NONE	Electrical compressor Air Flow : 1400NL Max output pressure : 10 bar Power Supply : 400V-50Hz, 11 KW
Air Dryer		Optional	Optional	Refrigeration type. Air flow: 100 m3/h, connection 3/4", max inlet pressure 16 bar
Air TANK		NONE	NONE	300L, Vertical
Internal AIR distribution		<b>INCLUDED</b>	<b>INCLUDED</b>	<b>INCLUDED</b>
High pressure GAS generator		NONE	NONE	NONE
Air conditioner equipment		External Supply Line • 9,500 BTU • Dehumidification (Pts/Hr) 3.0 • 280 CFM	External Supply Line • 9,500 BTU • Dehumidification (Pts/Hr) 3.0 • 280 CFM	External Supply Line • 14000 BTU • Dehumidification (Pts/Hr) 3.0 • 420 CFM
Mechanical equipment installed		- Nozzle Remover MAX 6" - Portable Grinding & lapping machine - Universal work bench w/ vice 8" - Office bench - Tools Cabinets - Fire extinguisher.	- Nozzle Remover MAX 6" - Portable Grinding & lapping machine - Universal work bench w/ vice 8" - Office bench - Tools Cabinets - Fire extinguisher. - Impact drill machine Electric driven - Straight grinder - Complete tools set for industrial maintenance.	- Nozzle Remover mandrin MAX 12" - Portable Grinding & lapping machine - Grinding machine for GATE VALVES & SWING CHECK VALVES. - Universal work bench w/ vice 8" - Office bench - Tools Cabinets - Swing doors cabinets - Compact floor drill - Universal Centre lathe machine. - Impact drill machine Electric driven - Straight grinder - Complete tools set for industrial maintenance. - Fire extinguisher.
Lifting Equipments	Overhead travelling CRANE	NONE	0.5 TON w/Manual Hoist	1 TON w/Electrical Hoist (1 TON)
	Swing CRANE	0,5 TON w/Manual Hoist	0,5 TON w/Manual Hoist	1 TON w/Electrical Hoist (1 TON)
<b>VALVE TEST EQUIPMENT</b>		PSV test bench: <b>BV-M/60-LAB</b> Up to 6" Size	Control Valve test bench: <b>BO45-2CV/100-LAB</b> Up to 12" Size PSV test bench: <b>BV-M/60-LAB</b>	Control Valve test bench: <b>BO45-2CV/100-LAB</b> Up to 12" size PSV test bench: <b>BV-M/60-LAB</b>
Nondestructive test		Optional	Optional	Magnetic particle inspection (MT kit) & Liquid penetrants (PT kit).
Dimension	Std Size	<b>10'</b>	<b>20'</b>	<b>40'</b>
	External	2438 (L) x 2991 (D) x 2591 (H) mm	2438 (L) x 6058 (D) x 2591 (H) mm	2438 (L) x 11956 (D) x 2500 (H) mm
	Internal	2344 (L) x 2831 (D) x 2376 (H) mm	2344 (L) x 5898 (D) x 2376 (H) mm	2344 (L) x 11796 (D) x 2376 (H) mm
	Access door	2310 (L) x 2280 (H) mm	2310 (L) x 2280 (H) mm	2310 (L) x 2280 (H) mm
Superposition		Allowed – Max 2 units	Allowed – Max 2 units	Allowed – Max 2 units
Floor		Plywood with plastic coating, thickness 20 mm water resistant made tight with elastic resin Covered Chequered aluminium plate, 4mm thickness. Max load 1500 Kg/m2	Plywood with plastic coating, thickness 20 mm water resistant made tight with elastic resin Covered Chequered aluminium plate, 4mm thickness. Max load 1500 Kg/m2	Plywood with plastic coating, thickness 20 mm water resistant made tight with elastic resin Covered Chequered aluminium plate, 4mm thickness. Max load 1500 Kg/m2
<b>CT Entrance &amp; Window</b>		1 Entrance door	1 Entrance door	1 Entrance door + 1 side door
Outside color		WHITE RAL 7035 & Blu RAL 5003	WHITE RAL 7035 & Blu RAL 5003	WHITE RAL 7035 & Blu RAL 5003
Working location		Onshore	Onshore	Onshore
<b>Working temperature</b>		0° - 45° C (others on request)	0° - 45° C (others on request)	0° - 45° C (others on request)



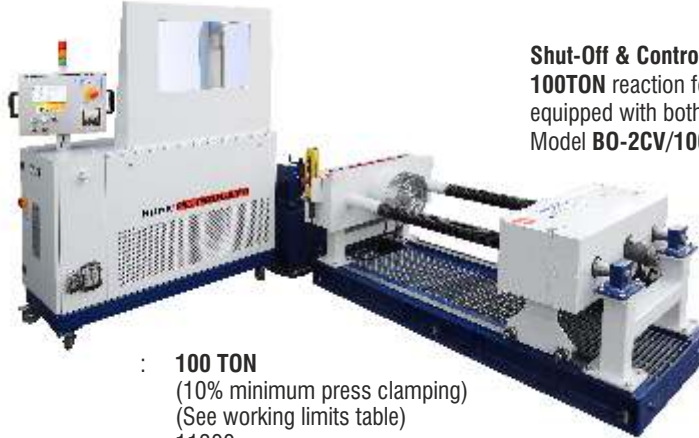


**BO-2CV/100-LAB**

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING, LOW FLOW AXES HEIGHT

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

CLAMP  
TYPE  
**3**



**Shut-Off & Control valves test rig.**

**100TON** reaction force, **Combined clamping**, horizontal test bench equipped with both bore plugs & proportional press clamping style. Model **BO-2CV/100 LAB & SKM-100**.

- Reaction force : **100 TON**  
(10% minimum press clamping)  
(See working limits table)
- Valve length max : 11300 mm
- Valve length min : 0 mm
- Column inner clearance : 900
- Flow axes height : 650 mm from the ground
- Basement water vessel : 170 Liters
- Terminations allowed : BW, SW, RF, RJ
- Clamping style : Type 3 – Combined  
Inner radial clamping  
& Pressing clamping with  
Proportional control
- Dimensions (mech) : 2600 (L) x 1290 (D) x 910 (H) mm  
(Mechanical structure)

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"
ANSI-150	TON										
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										

\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size and they have to be considered as reference only. Press clamping style limits are based on bore size increased by 50 mm. For more accurate information please contact our technical department or consult the instructions book delivered along the rig.

**BV-M/60-LAB**

CLAWS CLAMPING LOW LOADING HEIGHT



CLAMP  
TYPE  
**5**



- Reaction force : **60 TON**  
(See working limits table)
- Flange max diameter : 530 / 650 / 860 mm
- Flange min diameter : 90 mm
- Flange thickness max : 90 mm
- Tilt angle : FIXED (not tiltable)
- Basement water vessel : 200 Liters
- Terminations allowed : RF, RJ
- Clamp type : Hydraulic cylinder w/claws Clamping force
- Range : 5..100 %
- Electrical supply : 3PH + T400V@50Hz, 2KW
- Dimensions (mech) : 1250 (L) x 700 (D) x 650(H) mm

**\*Working limits with CLAWS CLAMPING**

DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
bar	700	700	452	340	191	122	85	62	43	35

\*Note: Showed data has been calculated considering nominal minimum bore size ANSI + 50mm. For further details please contact our technical department. Table refer to mechanical LOAD only, compatibility about general valve dimension has to be verified.

**High Pressure air compressor up to 300 bar with 150 Liters reservoir vessel. Surge vessel 200 Liters for blow down supply**



## BO45-2CV/100 LAB

with 45° column disposal

DOUBLE SCREWED COLUMN + CYLINDER  
COMBINED CLAMPING  
LOW FLOW AXES HEIGHT

CLAMP  
TYPE  
**3**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)



Horizontal test rig with combined clamping style: inner radial seal and press clamping facilities. The mobile reaction bridge is moved by two screwed columns that assure complete absence of external forces on valve body and an hydraulic cylinder can make press clamping with or without proportional control. This prerogative allows the customers to reduce operational risk avoiding expensive gas tests bunkers. The rig is controlled by a SKA-100 pressurization skid; to have more information about it please consult dedicated technical data sheets. The rig could be completed with several options and accessories.

**!** Note: Safety perimetral protection available on request

Reaction force	:	<b>100 TON</b> (10% minimum press clamping)
Length max	:	1300 mm
Length min	:	0 mm
Column inner clearance	:	900 mm
Flow axis height	:	700 mm
Basement water vessel	:	170 Liters ca.
Terminations allowed	:	BW, SW, RF, RJ
Clamping style	:	Type 3 – Combined
Dimensions (mech)	:	2250 (L) x 1016 (D) x 1200 (H) mm

**\*Working limits for SHELL TEST with INNER RADIAL SEAL and PROPORTIONAL PRESS CLAMPING**

	DN	1"	2"	3"	4"	6"	8"	10"	12"	14"	16"
ANSI-150	TON										
ANSI-300	TON										
ANSI-600	TON										
ANSI-900	TON										
ANSI-1500	TON										
ANSI-2500	TON										

(\*Note: Indicated values have been calculated for **shell test** and with **API-6D** nominal minimum bore size + 50mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult the instructions book delivered along the rig



BPA-250K

1/4 Turn actuator  
static and  
dynamic  
torque  
test benches

think' **PC PROGETT**



think PC PROGETTI

think'PC PROGETTI

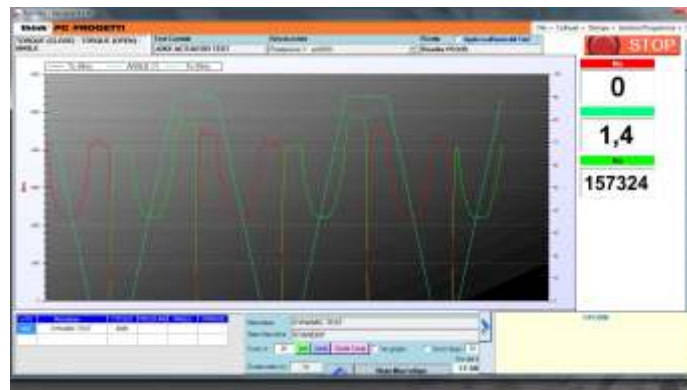


### STATIC TORQUE PEAK MEASURE AND ENDURANCE DYNAMIC TEST



Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

Scotch YOKE 1/4 turn actuator test bench able to perform TORQUE tests in static positions and dynamic endurance full load simulation.  
It is controlled by a **SKMM-100** pressurization skid and test data are collected by TestREC control software.





**BPA-250K**  
**BPA-400K**

STATIC TORQUE PEAK MEASURE  
AND ENDURANCE DYNAMIC TEST

	<b>BPA-250K</b>	<b>BPA-400K</b>
Nominal TORQUE	: 250.000 Nm	400.000 Nm
Working range	: 10 – 100%	10 – 100%
Torque measurement	: Indirect (loading cell)	Indirect (loading cell)
Angle range	: 0.0° - 90.0°	0.0° - 90.0°
ZERO adjustment	: -5.0° / +5.0°	-5.0° / +5.0°
Bidirectional reaction force	: INCLUDED	INCLUDED
Static torque measuring angle res.	: 0,1°	0,1°
Static torque fixed point (PIN BLOCK)	: Available as option	Available as option
General accuracy	: 0.5% F.S.	0.5% F.S.
Dynamic test simulation	: Dynamic brake	Dynamic brake
Rotation speed	: 0,1 – 2,0 °/sec (Other on request)	0,1 – 1,5 °/sec (Other on request)
Dimensions (mech)	: 2700 (L) x 2600 (D) x 1600 (H) mm	2700 (L) x 3600 (D) x 1600 (H) mm



SK-PC/01

SKMA-100



BPA-250K





**BPA-10K  
BPA-40K  
BPA-130K**

**STATIC TORQUE PEAK MEASURE  
AND ENDURANCE DYNAMIC TEST**

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



- BPA-10K**
- Nominal TORQUE : 10000 Nm
- Torque measurement : Direct / Indirect
- Working range : 10 – 100%
- Angle range : 0.0° - 90.0°
- ZERO adjustment : -5.0° / +5.0°
- Bidirectional reaction force : INCLUDED
- Static torque measuring angle res. : 0,1°
- Static torque fixed point (PIN BLOCK) : Available as option
- General accuracy : 0.5% F.S.
- Dynamic test simulation : Dynamic brake
- Rotation speed : 0,1 – 3,5 °/sec (Other on request)
- Dimensions (mech) : 1540 (L) x 1770 (D) x 900 (H) mm

Scotch YOKE 1/4 turn actuator test bench, able to perform TORQUE tests in static positions and dynamic endurance full load simulations.

It is controlled by a **SKMA-100** pressurization skid and test data are collected by TestREC-ACT control software.





**BPA-40K**

Nominal TORQUE	: 40000 Nm
Torque mesurement	: Direct / Indirect
Working range	: 10 – 100%
Angle range	: 0.0° - 90.0°
ZERO adjustment	: -5.0° / +5.0°
Bidirectional reaction force	: INCLUDED
Static torque measuring angle res.	: 0,1°
Static torque fixed point (PIN BLOCK)	: Available as option
General accuracy	: 0.5% F.S.
Dynamic test simulation	: Dynamic brake
Rotation speed	: 0,1 – 2,9 °/sec (Other on request)
Dimensions (mech)	: 2300 (L) x 2316 (D) x 1150 (H) mm



SK-PC/01

SKMA-100

BPA-40K



BPA-130K

SKMA-100

SK-PC/01

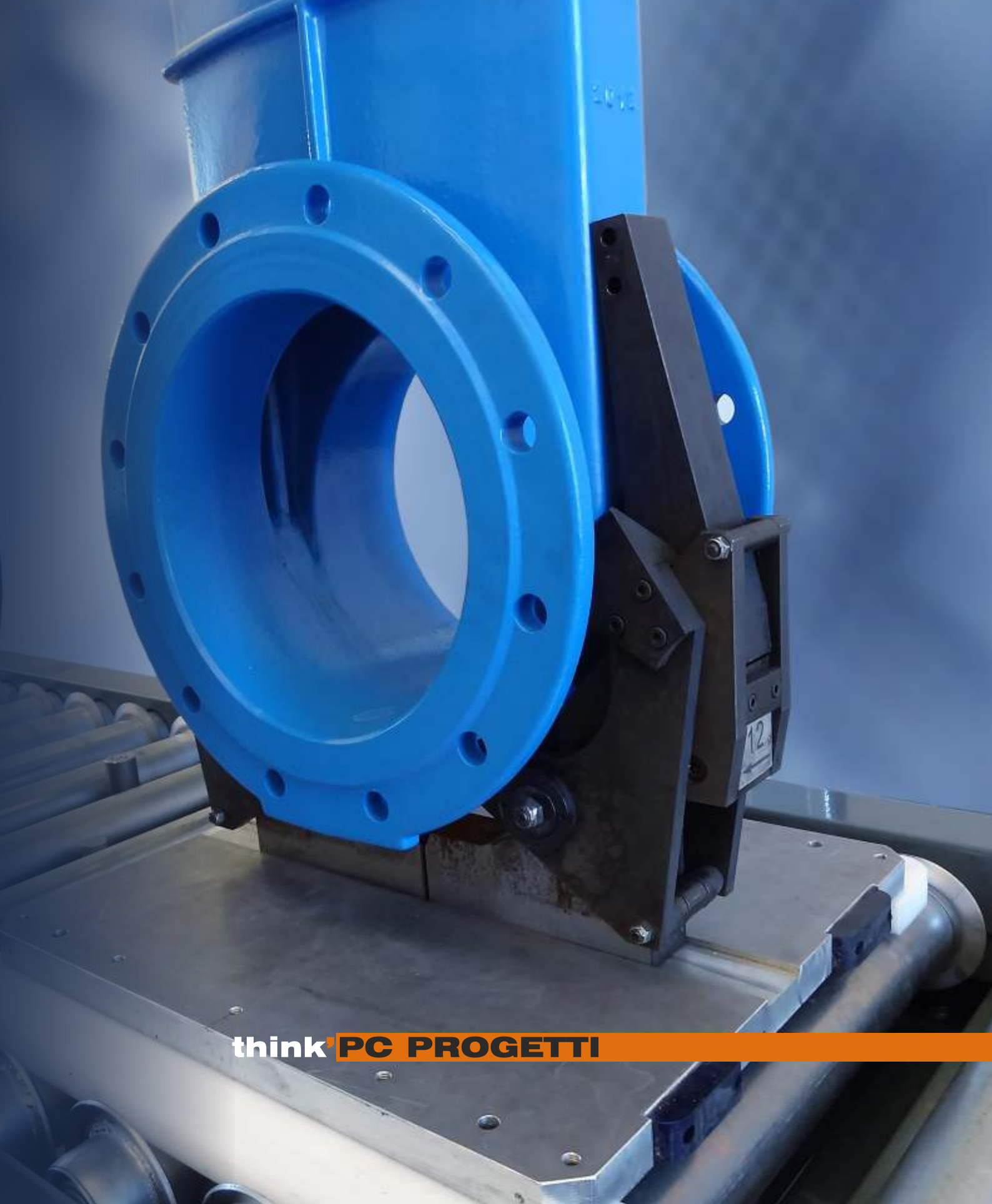
**BPA-130K**

Nominal TORQUE	: 130000 Nm
Torque mesurement	: Direct / Indirect
Working range	: 10 – 100%
Angle range	: 0.0° - 90.0°
ZERO adjustment	: -5.0° / +5.0°
Bidirectional reaction force	: INCLUDED
Static torque measuring angle res.	: 0,1°
Static torque fixed point (PIN BLOCK)	: Available as option
General accuracy	: 0.5% F.S.
Dynamic test simulation	: Dynamic brake
Rotation speed	: 0,1 – 2,5 °/sec (Other on request)
Dimensions (mech)	: 2300 (L) x 2516 (D) x 1150 (H) mm



BO-CV/40SA

# Special Applications & Pressurization Skids



**think PC PROGETTI**



## Special Applications

### SKC-100

#### ENDURANCE CYCLING PRESSURIZATION SKID



Automatic skid for endurance tests on trunnion mounted ball valves. The system supplies a total leakage flow of 0.7L/min (0,5 L/min on downstream side + 0,2 L/min from cavity). A control system will be interfaced directly to a axial piston motor able to perform opening/dosing movements on valves under test with the adjustable torque. Cycling is controlled by a PLC and a configuration LCD touch screen.

Allowed fluids	:	H2O + oil em. 5%
Supply water pressure	:	2.5 - 8 bar
MAX working pressure	:	250 bar
Accumulator	:	60 Liters
Compression ratio	:	60:1
Motor torque	:	4,52Nm/bar, MAX 45 Kgm
Connection	:	NPT 3/8"
Pressure measure	:	LCD Touch screen
Electrical supply	:	2PH + T, 220V@50Hz
Dimensions (mech)	:	600 (L) x 1150 (D) x 1500 (H) mm

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]

### SKMM-100/FS

#### FIRE SAFE TEST PRESSURIZATION SKID



PRESSURIZATION SKID for FIRE SAFE TESTS  
according to API-607 / API 589 / API – 6FA

This pressurization skid has all process equipment to perform FIRE SAFE tests on valves with stem packing or quarter turn shutoff valves. It has up to 8 thermocouples with calorimeter cubes (where necessary). Internal water reservoir of 120L. max working pressure 1600 bar. Full digital report through RS232 MODBUS RTU connection, data collection with certification software TestRECFS-M.

Allowed fluids	:	Plain water
Water reservoir	:	Internal 120 Liters
Max working pressure	:	700/ 1050/ 1380/ 1600 bar
Filling flow	:	70 Liters/min
Air driven booster ratio	:	1:100/ 1:150/ 1:225 / 1:250
Reference std	:	API-607 / API-589 / API-6FA
Temperature measure	:	Nr. 5 TC type K with Digital display
Pressure measure	:	Nr. 2 pressure transmitters with Digital Display.
Water level measure	:	Nr. 1 Pressure transmitter with Digital Display
Dimensions (mech)	:	600 (L) x 1150 (D) x 1500 (H) mm





**SKMM-100/HC**  
HYBERBARIC CHAMBER  
PRESSURIZATION SKID



Pressurization skid able to control a hyperbaric chamber.  
Up to 10000 m depth simulation, with 40L volume compensation with high pressure accumulators.  
PSV protection on max dept . GAS & Water test facilities included.  
Automatic Filling/Recovering of water into hyperbaric chamber.

Simulated dept	: 300M, 1000m, 4500 m, 7000 m, 10000 m
Compensated volume	: 10 Liters / 40 Liters / 200 Liters
Gas test	: Up to 1000 bar
Water test	: Up to 2000 bar
Filling flow	: 120 Liters / 470 Liters / 910 Liters/min
Dimensions (mech)	: 600 (L) x 1150 (D) x 1500 (H) mm

**SKMM-100/UHP**  
**SKMM-100/UHP2**  
ULTRA HIGH PRESSURE  
PRESSURIZATION SKID



Ultra high pressure hydraulic pressurization skid, up to 10000 bar  
High pressurization ratio liquid pump along with reliable needle valves makes this skid suitable for high pressure systems.  
Emergency pressure release is included as well.

	<b>SKMM-100 UHP</b>	<b>SKMM-100 UHP2</b>
Allowed Media	: Water + Oil	Water + Oil
Max Working pressure	: 5000 bar	10000 bar
Filling FLOW ability	: 1 Liters/min	1 Liters/min
Output connections	: 3/8" UHP	3/8" UHP
Internal liquid reservoir	: 50 Liters	50 Liters
Dimensions (mech)	: 700 (L) x 1120 (D) x 1120 (H) mm	700 (L) x 1120 (D) x 1120 (H) mm

**10000  
bar**





### SKA-100/GAS

AUTOMATIC GAS PRESSURIZATION SKID FOR BUNKERED TESTING BAY.

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. [Patent Pending]



Automatic pressurization skid for BUNKER testing bay. It is installed inside a bunker, but it is controlled by a console outside the safety perimeter. The skid has been designed to perform GAS tests on process components, with a 2-step pressurization along with the possibility to perform VISUAL inspections of components, ruling the access to the protection bunker. A certification software allows operators to collect all testing results and graphing waveforms, and configure the inputs with test parameters.

**!** Note: Safety perimetric protection available as option  
Bunker or Pit assembly asset available as option.

- Max working pressure : 450 / 700 / 1050 / 1550 bar
- Test media : N2 - He
- Gas booster : Air driven
- Process style : Bidirectional seat test
- Control system : Automatic & Manual (SCADA)
- Leak Detection : Digital bubbles counter Mass flowmeters
- Pressure measure : Digital w/ pressure port for master gauge
- Digital interface : Ethernet LAN
- Certification SW : TestREC®
- Dimensions (Mech) : 400 (L) x 1000 (P) x 1200 (H) mm





**BO-CV/40SA**

PRODUCTION LINE AUTOMATIC TEST

CLAMP  
TYPE  
1



ThinkPC PROGETTI's new test unit designed to perform high speed API / DIN full valve test procedures directly on 2 ways valve production lines. Special product supports pallets rolling on conveyor, allowing perfect alignment. Clamping procedure is fully automatic with 4-axes positioning control, with proportional press clamping to reduce mechanical stress to minimum terms. Valve Opening / Closing movements are even automatic, controlled by a torque programmable hydraulic actuator. The rig is configured by TestREC Windows based software package that can store recipes and test data of each tested product.

Standard version is described. Test bench can be customized in any technical aspect in accord to client preferences. (Patent Pending)

- Reaction force : **40 TON**
- Length max : 760 mm
- Length min : 90 mm
- Loading height : 1250 - 1500 mm (Automatic regulation)
- Basement water vessel : 100 Liters
- Terminations allowed : RF, RTJ, BW, SW
- Clamping style : Type 1 – with proportional (option)
- Clamping force control : Proportional pressing
- Reference standards : ISO, DIN, API, ANSI, ASTM, FCI, BS (Other on request).
- Filling flow : 70L/min
- Vacuum pump : 36m /h (Option)
- Max pressure : 100 bar (water) - 12 bar (AIR)
- Pneumatic supply : 7 bar @ 2000 NI/min
- Electric supply : 3PH + T, 380V@50Hz,10KW (other on request)
- Dimensions (mech) : 2060 (L) x 1160 (D) x 4100 (H) mm

**\*Working limits for PRESS CLAMPING and INNER RADIAL SEAL ANSI VALVES, SHELL TEST**

	DN	1/2"	1"	2"	3"	4"	5"	6"	8"
ANSI-150	TON								
ANSI-300	TON								
ANSI-600	TON								
ANSI-900	TON								
ANSI-1500	TON								
ANSI-2500	TON								
ANSI-4500	TON								

(\*Note: Indicated values have been calculated for shell test and with API-6D nominal minimum bore size + 30mm and they have to be considered as reference only. For more accurate information please contact our technical department or consult instructions book delivered along the rig



# I4.0 READY



## Automatic pressurization Skid

### SKA CLASS



SKA-50

SKA-100/S

SKA-100

SKA-250

Max working pressure				
H <sub>2</sub> O	700/ 1050/ 1380/ 1600 bar	700/ 1050/ 1380/ 1600 bar	700/ 1050/ 1380/ 1600/ 2068/ 4138/ 6897 bar	700/ 1050/ 1380/ 1600/ 2068/ 4138/ 6897 bar
N <sub>2</sub> / He	700 bar	-	200 / 450 / 700 / 1380 bar	200 / 450 / 700 / 1380 bar
Air	300 bar	- (SHV model: 0.998 / 0 bar)	200 / 450 bar	200 / 450 bar
Filling flow	<b>70 L/min</b> (from external line)	<b>70 L/min</b> (from external line)	<b>120 L/min</b>	<b>240 L/min</b>
Pressurization Power	0,4 / 1,5 HP	0,4 / 1,5 HP	1,5 / 3 HP	1,5 / 3 HP 3 / 6 / 9 HP
Vacuum pump opt.	Not available	36 m <sup>3</sup> /h	36 / 80 m <sup>3</sup> /h	80 / 160 m <sup>3</sup> /h
Backseat test	Not available	Not available	Available	Available
Seat over pressure test	Not available	Not available	Available	Available
Operating HP test	Not available	Not available	Available	Available
DBB test opt.	Not available	Not available	Available	Available
GAS Test opt.	Not available	Not available	Available	Available
GAS Booster opt.	Not available	Not available	Available	Available
CAVITY test opt	Not available	Not available	Available	Available
Multistation opt.	Not available	Not available	Available	Available
Actuator control panel opt.	Not available	Not available	Available (option)	Available (option)
ATEX certification opt.	Not available	Not available	II 2/3- G c X	Available
Fluid allowed	Water, Water & oil mixture, Glicole, Ethanol (Atex), Methanol (Atex).			
Control system	PLC/LCD touch screen 7"	PLC/LCD touch screen 7"	PLC/LCD touch screen 7"/ 10"	PLC/LCD touch screen 7"/ 10"
Printer opt.	Available	Not available	Available - Thermal printer 24cln	Available - Thermal printer 24cln
Ref. Standard	API \ DIN \ BS \ FCI other on request	API \ DIN \ BS \ FCI other on req.	API \ DIN \ BS \ FCI other on request	API \ DIN \ BS \ FCI other on request
Ethernet Interface	RJ45 10-100BASE-T	RJ45 10-100BASE-T	RJ45 10-100BASE-T	RJ45 10-100BASE-T
Certification software	Option TestREC	Option TestREC	Option TestREC	Option TestREC
Teleservice VPN router	Available	Not included	Included	Included
Leakage detection:				
Air	ANSI Bubbler, Bubbles counter, Volumetric bubbler, Mass flowmeters			
Water	Water Column, Digital water column, Turbines flowmeters, accordin client preferences.			
Service air supply	7 bar @ 2000L/min Other available on request	7 bar @ 2000L/min Other available on request.	7 bar @ 2000L/min Other available on request.	7 bar @ 2000L/min Other available on request.
Electrical supply	3ph+T 400V@50Hz 1 KW Other available on request.	3ph+T 400V@50Hz 2.2 KW Other available on request.	3Ph+T 400V@50Hz 5,5KW Other available on request.	3Ph+T 400V@50Hz 6 KW Other available on request.
Dimensions (mech)	600(L) x 550(D) x 1000(H)	500(L) x 1000(D) x 700(H)	600(L) x 1300(D) x 1900(H)	600(L) x 1500(D) x 1900(H)



AUTO/MAN double control style (auto/man) available as option





SKA-500

SKA-1000

SKA-2000

SKA-4000

700/ 1050/ 1380/ 1600 bar  
200 / 450 / 700 bar  
200 / 450 bar

700/ 1050/ 1380/ 1600 bar  
200 / 450 / 700 bar  
200 / 450 bar

700/ 1050/ 1380/ 1600 bar  
200 / 450 / 700 bar  
200 / 450 bar

700/ 1050/ 1380/ 1600 bar  
200 / 450 / 700 bar  
200 / 450 bar

**470 L/min**

3 / 6 / 9 / 12 HP

80 / 160 m<sup>3</sup>/h

Available

Available

Available

Available

Available

Available

Available

Available

Available (option)

**940 L/min**

4,5 / 6 / 9 / 12 HP

160 / 240 m<sup>3</sup>/h

Available

Available

Available

Available

Available

Available

Available

Available

Available (option)

**1880 L/min**

6 / 9 / 12 HP

160 / 240 m<sup>3</sup>/h

Available

Available

Available

Available

Available

Available

Available

Available

Available (option)

**3900 L/min**

15 / 30 HP

160 / 240 m<sup>3</sup>/h

Available

Available

Available

Available

Available

Available

Available

Available

Available (option)

Available

Available

Available

Available

PLC/LCD touch screen 7"/ 10"

Available - Thermal printer 24cln

API \ DIN \ BS \ FCI other on request

RJ45 10-100BASE-T

Option TestREC

Included

PLC/LCD touch screen 7"/ 10"

Available - Thermal printer 24cln

API \ DIN \ BS \ FCI other on request

RJ45 10-100BASE-T

Option TestREC

Included

PLC/LCD touch screen 7"/ 10"

Available - Thermal printer 24cln

API \ DIN \ BS \ FCI other on request

RJ45 10-100BASE-T

Option TestREC

Included

PLC/LCD touch screen 7"/ 10"

Available - Thermal printer 24cln

API \ DIN \ BS \ FCI other on request

RJ45 10-100BASE-T

Option TestREC

Included

7 bar @ 2000L/min

Other available on request.

3Ph+T 400V@50Hz 7,5KW

Other available on request.

1300(L) x 1600(D) x 1900(H)

7 bar @ 4000L/min

Other available on request.

3Ph+T 400V@50Hz 10KW

Other available on request.

1250(L) x 1540(D) x 2400(H)

7 bar @ 4000L/min

Other available on request.

3Ph+T 400V@50Hz 10KW

Other available on request.

1300(L) x 2000(D) x 1900(H)

7 bar @ 6000L/min

Other available on request.

3Ph+T 400V@50Hz 40KW

Other available on request.

1300(L) x 3000(D) x 1900(H)

Hydraulic/pneumatic pressurization skid.

Controlled by a electronic PLC, configured by a LCD touch screen monitor whit double control styles: automatic and manual. Tests can be performed following test procedures programmed under the PLC control or by a manual activation of single process components (valves, pumps, ecc) through touch screen buttons. The PLC store test data, set-points, times and leak limits. The pressure set point is automatically

reached. Leaks could be measured (option) by electronic bubble counter or precision water columns for H<sub>2</sub>O leak (height measured by pressure transmitter). A vacuum pump could be installed (option) to assure the absence of air inside valves body before filling it with water; in order to reduce testing time and increasing operator's safety. All wet process components are stainless steel made and dimensioned for a working pressure of 700 bar (up to 4000 bar as option).

It has a high filling flow ability and the recovering of test fluid is automatic. Metal-to-metal needle valves assure high reliability. A 24 cln thermal printer (option) could be installed to print out a simple test report without connection to an external PC windows based supervision with certification software TestREC installed. The software and process option it has installed makes it compliant with the most widespread test standards.





## Semi automatic pressurization Skid


### SKM CLASS



**SKM-100**



**SKM-250**

Max working pressure		
H <sub>2</sub> O	700 / 1050 / 1380 / 1600 / 2068 / 4138 / 6897 bar	700 / 1050 / 1380 / 1600 / 2068 / 4138 / 6897 bar
N <sub>2</sub>	200 / 450 / 700 / 1380 bar	200 / 450 / 700 / 1380 bar
Air	200 / 450 bar	200 / 450 bar
Filling flow	<b>120 L/min</b>	<b>240 L/min</b>
Pressurization Power	1,5 / 3 HP	1,5 / 3 HP
Vacuum pump	36 / 80 m <sup>3</sup> /h	36 / 80 m <sup>3</sup> /h
GAS Test opt.	Available	Available
GAS Booster opt.	Available	Available
CAVITY test opt	Available	Available
Multistation option	Available 2 to 5 stations control	Not available
Actuator control panel opt.	Available (option)	Available (option)
ATEX certification opt.	Available 	Available
Fluid allowed	Water, Water & oil mixture, Glicole, Ethanol (Atex), Methanol (Atex).	
Control system	Electrical lighted pushbuttons installed on graphical synoptic panel.	
Ref. Standard	API \ DIN \ BS \ FCI (other on request)	API \ DIN \ BS \ FCI (other on request)
Serial Interface	RS485 MODBUS PROTOCOL	RS485 MODBUS PROTOCOL
Certification software	Option TestREC	Option TestREC
Leakage detection		
Air	ANSI Bubbler, Bubbles counter, Volumetric bubbler	
Water	Water Column, Digital water column	
Service air supply	7 bar @ 2000L/min Other available on request.	7 bar @ 2000L/min Other available on request.
Electrical supply	3Ph+T 400V@50Hz 5KW Other available on request.	3Ph+T 400V@50Hz 5,5KW Other available on request.
Dimensions (mech)	600(L) x 1300(D) x 1900(H)	600(L) x 1500(D) x 1900(H)

Hydraulic/pneumatic pressurization skid. Semi-automatic control with command on a control console. Each process element (valves & pump) is controlled by the operator by luminous pushbuttons. Leaks could be measured (option) by electronic bubble counters or precision water columns for H<sub>2</sub>O leak (height measured by pressure transmitter).

A vacuum pump could be installed (option) to assure the absence of air inside valve's body before filling it with water; in order to reduce testing time and increasing operators safety. All wet process components are stainless steel made and dimensioned for a working pressure of 700 bar (up to 4000 bar as option). It has a high filling flow ability and

the recovering of test fluid is automatic. Metal-to-metal needle valves assure high reliability. The "manual" nature of this skid allows the operator to perform test on valves (or test sequences) not contemplated into the reference test standards.



**SKM-500**

**SKM-1000**

**SKM-2000**

700 / 1050 / 1380 / 1600 bar  
 200 / 450 / 700 bar  
 200 / 450 bar

700 / 1050 / 1380 / 1600 bar  
 200 / 450 / 700 bar  
 200 / 450 bar

700 / 1050 / 1380 / 1600 bar  
 200 / 450 / 700 bar  
 200 / 450 bar

**470 L/min**

3 / 6 / 9 HP  
 80 / 160 m³/h  
 Available  
 Available  
 Available  
 Not available  
 Available (option)

**940 L/min**

3 / 6 / 9 / 12 HP  
 160 / 240 m³/h  
 Available  
 Available  
 Available  
 Not available  
 Available (option)

**1880 L/min**

6 / 9 / 12 HP  
 160 / 240 m³/h  
 Available  
 Available  
 Available  
 Not available  
 Available (option)

Available

Available

Available

API \ DIN \ BS \ FCI (other on request)  
 RS485 MODBUS PROTOCOL  
 Option TestREC

API \ DIN \ BS \ FCI (other on request)  
 RS485 MODBUS PROTOCOL  
 Option TestREC

API \ DIN \ BS \ FCI (other on request)  
 RS485 MODBUS PROTOCOL  
 Option TestREC

7 bar @ 2000L/min  
 Other available on request.  
 3Ph+T 400V@50Hz 7,5KW  
 Other available on request.  
 1250(L) x 1250(D) x 1900(H)

7 bar @ 4000L/min  
 Other available on request.  
 3Ph+T 400V@50Hz 10KW  
 Other available on request.  
 1300(L) x 1700(D) x 1900(H)

7 bar @ 4000L/min  
 Other available on request.  
 3Ph+T 400V@50Hz 10KW  
 Other available on request.  
 1300(L) x 2000(D) x 1900(H)





## Manual pressurization Skid

### SKMM CLASS




**SKMM-10**



**SKMM-80/GAS**



**SKMM-100**

Max Working pressure			
H <sub>2</sub> O	700 / 1200 / 2100 / 4000 bar	-	700 / 1050 / 1380 / 1600 / 2068 / 4138 / 6897 bar
N <sub>2</sub> :	700 / 1050 bar	200 bar	200 / 450 / 700 / 1000 bar
AIR :	200 / 450 bar	200 bar	200 / 450 bar
Filling flow H <sub>2</sub> O	10L/min ( 10L Internal TANK Included)	-	120 L/min
Vacuum pump	-	-	36 m <sup>3</sup> /h (80 m <sup>3</sup> /h on request)
DBB test opt.	Included	-	Available
GAS Booster opt	Available	-	Available
CAVITY test	Available	Available	Available
ATEX certification opt.	Available 	Available	Available
Process style	Bidirectional	Unidirectional	Bidirectional, with or without bypass valve
HP Fluid allowed	Water, Water & oil mixture. Glicole, Ethanol / Methanol (Atex)	GAS (N <sub>2</sub> , He, AIR)	Water, Water & oil mixture. Glicole, Ethanol (Atex). Methanol (Atex), GAS (N <sub>2</sub> , He, AIR)
Control system	Manual needle valve	Manual needle valve	Manual valve & Electrical lighted pushbuttons installed
Pressure measure	Analog gauge / Digital	on graphical synoptic panel 4-20mA Pressure transmitter + 7-seg Digital Display	on graphical synoptic panel 4-20mA Pressure transmitter + 7-seg Digital Display
Ref. Standard	API / DIN / BS / FCI	API / DIN / BS / FCI	API / DIN / BS / FCI
Serial Interface	RS-485 MODBUS PROTOCOL	RS-485 MODBUS PROTOCOL	RS-485 MODBUS PROTOCOL
Certification software	Option TestREC	Option TestREC	Option TestREC
Leakage detection			
AIR / GAS	-	ANSI Bubbler, Bubbles counter. Volumetric bubbler, Mass Flowmeters	ANSI Bubbler, Bubbles counter. Volumetric bubbler, Mass Flowmeters
Water	-	-	Water column, Digital water column, Turbine flowmeters.
Process Connections	BSPP 1/2"-F / HP 1/4"-F	NPT 1/2"-F, HP 1/4"-F	BSPP 1"-F
Service air supply	7bar @ 2000 L/min Other available on request	-	7bar @ 2000 L/min Other available on request
Electrical supply	-	2Ph + G 220V@50Hz 1KW Other available on request	3Ph + G 380V@50Hz 3KW Other available on request
Dimensions (mech)	700(L) x 300(D) x 350(H)	600(L) x 800(D) x 1580(H)	700(L) x 1120(D) x 1120(H)

Hydraulic/pneumatic pressurization skid. Controlled by a electrical pushbuttons on a graphical synoptic panel or manual needle valves (GAS). Every process element is directly controlled by the operator; a main safety garrison for wrong maneuvers has been included. This

makes the SKID very flexible to any testing procedure. Leaks could be measured (option) by electronic bubble counters, high accuracy water column (API), a turbine flow meter and a mass flow meter (FCI 70-2). A vacuum pump could be installed (option) to assure the

absence of air inside valves body before filling it with water; in order to reduce testing time and increasing operator's safety. All wet process components are stainless steel made and dimensioned for a working pressure of 700 bar (4000 bar as option).




SKMM-50/Gas/B2



SKMM-100/Gas/B2



SKMM-100/Gas/B3



SKMM- 100/GAS - B4

-	-	-	-
200 bar	450 / 700 / 1380 bar	1050 bar	N2 60 / 200/ 700 bar contemporary, AIR 60 / 200 bar contemporary
200 bar	-	-	-
-	-	-	-
-	-	-	-
-	Available	-	-
Available	Available	Available	Available
Available	Available	Available	Available
Available	Available	Available	Available
Bidirectional	Bidirectional	Bidirectional.	Bidirectional
GAS (N2, He, AIR)	GAS (N2, He, AIR)	GAS (N2, He)	GAS (N2, He)
Manual needle valve on graphical synoptic panel	Manual valve & Electrical lighted pushbuttons installed on graphical synoptic panel	Manual valve & Electrical lighted pushbuttons installed on graphical synoptic panel	Manual valve & Electrical lighted pushbuttons installed on graphical synoptic panel
Analog pressure gauge	4-20mA Pressure transmitter + 7-seg Digital Display	4-20mA pressure trasmitter + LCD	4-20mA pressure trasmitter + 7-seg Digital Display
API / DIN / BS / FCI	API / DIN / BS / FCI	API / DIN / BS / FCI	API / DIN / BS / FC
-	RS-485 MODBUS PROTOCOL	RS-232	RS-485 MODBUS PROTOCOL
-	Option TestREC	Option TestREC	Option TestREC
ANSI Bubbler, Bubbles counter. Volumetric bubbler, Mass Flowmeters Water column, Digital water column, Turbine flowmeters.	ANSI Bubbler, Bubbles counter. Volumetric bubbler, Mass Flowmeters -	ANSI Bubbler, Bubbles counter, Volumetric bubbler. -	ANSI Bubbler, Bubbles counter, Volumetric bubbler. -
BSPP 1/4"	NPT 1/2"-F, HP 1/4"-F	NPT 1/2"-F / HP 1/4"-F / HP 3/8"-F	NPT 1/2"-F / HP 1/4"-F / HP 3/8"-F
-	7bar @ 2000 L/min Other available on request	7bar @ 2000 L/min Other available on request	7bar @ 2000 L/min Other available on request
2Ph+G 220V@50Hz 1KW Other available on request	2Ph+G 220V@50Hz 1KW Other available on request	2Ph+G 220V@50Hz 1KW Other available on request	2Ph+G 220V@50Hz 1KW Other available on request
600(L) x 600(D) x 1020(H)	700(L) x 1120(D) x 1120(H)	700(L) x 1120(D) x 1120(H)	1000 (L) x 1280 (D) x 2000 (H) Bullet proof class BR6 dim. 900 (L) x 700 (D) x 700 (H)



## CCMP/200 AIR COMPRESSOR



## CCMP/80 AIR COMPRESSOR



Air compressor skid.

It is formed by an electric 3 stage compressor able to pressurize ambient air up to 330 bar as std.

Reservoir vessel and final pressure booster are available as options.

Maximum outlet pressure: 1000 bar.



	<b>CCMP/200</b>	<b>CCMP/80</b>
Outlet pressure	: 330 bar std	200 bar std
Flow ability	: 200 SL/min (8 min to pressurize 10 L vessel up to 200 bar).	80 SL/min (25 min to pressurize 10 L vessel up to 200 bar).
Final booster	: Optional – Available on request	Optional – Available on request
Reservoir tank	: 150 L @ max 330 bar	50 L @ max 330 bar
Noise level	: 79 Db (ISO-3746)	91 Db (ISO-3746)
Electrical supply	: 3PH + T, 400V@50Hz, 5KW	2PH + T, 220V@50Hz, 5KW
Dimensions (mech)	: 900(L) x 2100(D) x 2100(H) mm	700(L) x 700(D) x 2100(H) mm

## SK-SC/01

### TEST AREA VIDEO SURVEILLANCE SYSTEM



Control console for IP Cameras, with 3D positioning control device. Possibility to see test procedures even remotely over WAN connection, or on Smartphone App. Digital video recorder include with possibility export video data on USB key or LAN connection. Safety Video detection alarm for unauthorized people in dangerous area.

- Nr. 4 HDCVI High definition Cameras, 30fps@1080P, Sensor 1/2.8" CMOS. Resolution 1920px(H)x1080px(V), 2MP, Motorized w/Fixed Iris Lens 2.7-12mm, Minimum illumination 0.005Lux/F1.8, 30IRE, 0Lux IR on. DORI Def. Observe Wide-19m, Tele-55m. Pan 0°-355°, Tilt 0°-75°, Rotation 0°-355°. Working temperature -30° +60°C. Protection IP67 & IK10.
- Nr.1 Monitor LCD 16:9 20.7"
- Nr. 1 Network keyboard & Dome Joystick position controller, 3D pos.
- Nr. 1 Digital video recorder, H.264+/H.264 dual-stream video compression, 4CH input max 8MP each, 1TB HD capacity (Max ex. To 8TB), HDMI / VGA output, USB 2.0, USB 3.0, Smartphone Network Android/iphone/Ipad, Videodetection alarm included.
- Nr. 1 Console cabinet Dim. 717(L) x 595(D) x 1625 (H)

## SK-PC/02

### PERSONAL COMPUTER CONSOLE

Console for industrial touchscreen Personal Computer Ideal for workshop certification application w/Ethernet interface to workshop DB.

The console include:

- Cabinet with ventilation equipment
- Panel PC Touchscreen



Personal Computer : Intel quad core 2.0GHz- RAM 8GB – HD 500GB - SO Windows 10 professional

LCD screen : TOUCH SCREEN Widescreen  
18.5 1366x768 - contrast 1000:1

Electrical supply : 220V@50Hz, 0.8KW

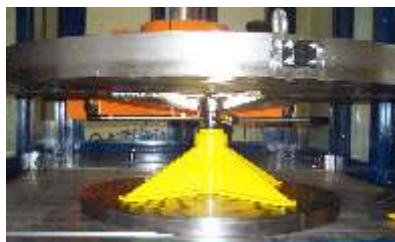
Dimensions (mech): 600 (L) x 500 (P) x 1000 (H) mm

### CV-1200/ 1700/ 2200/ 2700 VALVE SUPPORT



CV-1200	700mm – 1200mm	1000kg
CV-1700	1000mm – 1700mm	1000Kg
CV-2200	1500mm – 2200mm	1000Kg
CV-2700	2200mm – 2700mm	1000Kg

### PLT-600, PLT-2000 PLATEAU LOADING TOOL



Plateau loading tools. With these accessories it is possible to install sealing plateau on vertical rig quickly and under high safety conditions. It is available in 2 sizes: 600Kg – 2000Kg

### VB-1500 VOLUMETRIC BUBBLER



Measurable volume : 1500 mL  
Max working pressure : 2 bar  
Fluids allowed : H<sub>2</sub>O / Alcool

### RE-01 PORTABLE DIGITAL RECORDER FOR PRESSURE MEASURE



Portable digital recorder for pressure measures. Recorder data can be stored on USB key. Certification software supplied along the unit, it can read encrypted data on USB data storage to print out full waveforms.

### BC-01 PORTABLE DIGITAL BUBBLES COUNTER

Portable digital bubbles counter. Impedance variation detector amplifier is able to detect bubbles release from 1/4" glass pipe .



Leak Flow : max 3 bubbles /sec  
Connections : BSPP 1/4"  
Electrical supply : 2PH + T, 220V@50Hz, 100W  
Dimensions : 220 (L) x 268 (D) x 95 (H) mm

### BPR-01 BORE PLUGS SUPPORT



Adaptors range : 1/2"-12"  
Termination : RF valves up to class #600

### ACP-01 ACTUATOR CONTROL PANEL



### ACP-02 AUTOMATIC ACTUATOR CONTROL PANEL



Pneumatic Supply Sources : 0-6 bar @ 3500 NL/min, w/analog indication (1x)  
0-6 bar @ 340 NL/min, w/analog indication (2x)  
6 bar, fixed supply DN 6mm (3x)  
6 bar, fixed supply DN 12mm (3x)  
Pneumatic Control Signal : 0-145.0 PSI @ 770NL/min with digital indication, 10 turns controls potentiometer  
Electrical Supply sources : 0 – 260V @ 1A , with digital indication,  
0 – 110V DC, with digital indication.  
Electrical control signal : 0 – 30 V DC @ 3A with digital indication, 10 turns controls potentiometer  
0 – 21,0 mA @ 1200 ohm with digital indication, 10 turns controls potentiometer  
HART USB2.0 connection : Available on request.  
Assembly asset : Fixed / Portable

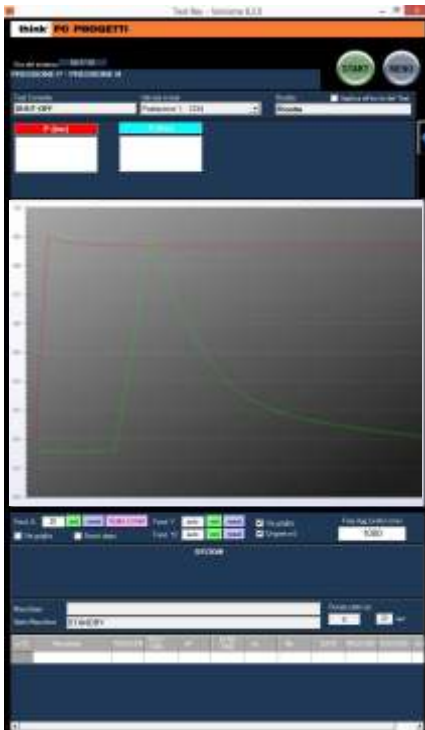
Pneumatic Supply Sources : 0-6 bar @ 3500 NL/min, w/analog indication (1x)  
Pneumatic Control Signal : 0-145.0 PSI @ 770NL/min with digital indication,  
10 turns controls potentiometer  
Electrical Supply sources : 220V @ 3A – 50Hz  
115V @ 3A – 50Hz  
24V @ 16A – 50Hz  
24V @ 10 A - DC  
Electrical control signal : - 0 – 10 V DC @ 20 mA with digital indication, 10 turns controls potentiometer  
- 0 – 21,0 mA @ 1200 ohm with digital indication, 10 turns controls potentiometer  
End course switch test : Open / Closed  
Dimension : 600 (L) x 430 (P) x 500 (H) mm





## TestREC

A COMPLETE, POWERFUL AND FLEXIBLE APPLICATION TO CREATE YOUR TEST CERTIFICATE



USABLE WITH ALL Think'PCprogetti TEST BENCHES

TestRec is the bundle software for all Think'PCprogetti test benches:

- MODBUS INTERFACE for SKM skids
  - SYSWAY INTERFACE for all SKA with Ethernet or RS232 communications.
- Simple to use and configure, it provides a complete set of tools to allow the operator a complete test control and certificate.

### SOFTWARE MAIN FEATURES

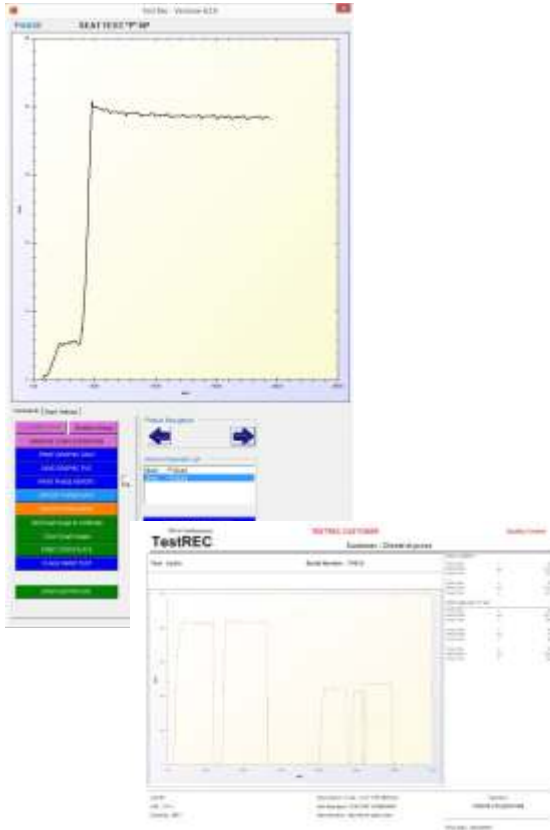
- Up to 10 channels simultaneously retrieved
- Multi-threaded process to ensure continuity of data reading in conjunction with the graphical display
- Management of the double Y axis graph in real-time and historical data
- English, Spanish, French, Russian and Italian languages
- Database management with integrated data backup and restore
- Compatible with all Windows versions from WIN XP SP3
- Pressure vs. time, Temperatures vs. time Zoom, Hold and auto-stop registration ability indications of simmer point, POP pressure, blowdown range, pressure drop
- Leak calculation tool
- Certifications export in PDF format
- Data exports in XLSX, TXT, CVS
- Customizable on request

### THE SOFTWARE FOR ALL YOUR NEEDS IN VALVE TEST

TestRec allows a full test result control:

- The data collected by the PLC is stored in real time and showed up to 7 channels simultaneously in a clear and simple chart window
- The chart window design allows the test bench full control at a glance by the operator and the immediate recognition of potentially critical situations
- Any data channel of any test performed at any time can be retrieved and showed in clear and exhaustive charts
- The operator can decide whether to use one preinstalled process configuration (recipes) or manually arrange and save any setting of the test bench in the database in order to create his own recipes.
- There are several working options and a useful setup utility to verify the accuracy of pressure transmitters installed on the skid
- All types of tests are supported in a wide certificate type selection
- Wide range of reports available
- Full customization service also available to fit all your needs
- Graphs concatenations to show multiple test results
- Customized certificate for all test types
- Full data control and manipulation
- A wide selection of data export tools





#### FULL CONTROL OF YOUR TEST

TestRec provides a complete tool to create your recipes to customize all the phases of your test\*:

- Duration time
- Stabilization and pressurization time
- Operating pressure for any valve test, low and high pressure.

All the test options (Hold, Vacuum, Linear Oil and so on) could also be simply managed.

\* depending on the skid type

#### Technical prerequisites (recommended)

Operative System	: Microsoft Win XP / 7 / 8 / 10 *
RAM memory	: 4GB *
Video Card memory	: 512 MB *
Processor	: Core 2 Duo 2GHz or equivalent *
Screen Resolution	: 1440x900px-1680x1050px (optimal) *
Hard - Disk	: 4GB free space *

\* all parameters or higher

NOW THINK'PCPROGETTI'S TESTREC SOFTWARE IS "INDUSTRY 4.0" READY.

# I4.0 READY

TestRec WEBApi is a simple, easy to use add on that matches all requests needed for "Industry 4.0" compliance.

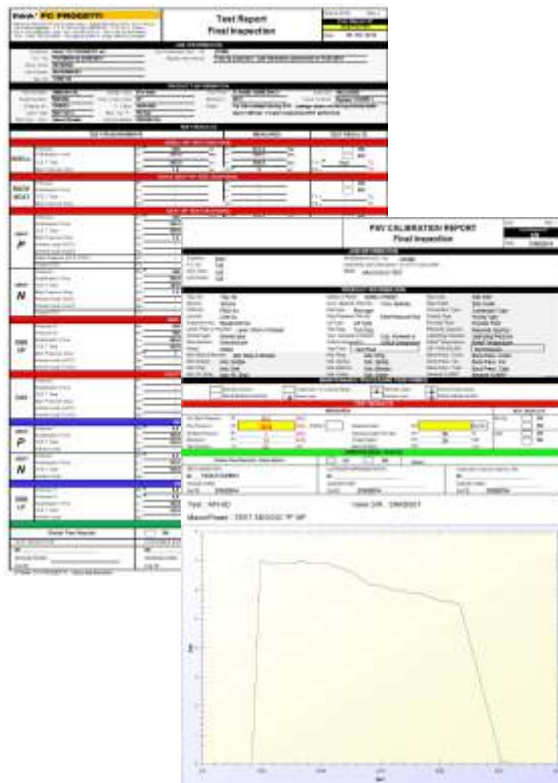
TestRec WebApi is a fully standard communication protocol service (HTTP, XML) that can be queried by the management/accounting software to read or write all information about the status of the installation:

- Complete valve master data
- Recipe details
- Full analysis of tests performed and results
- Machine status and status counters

And much more.

The service uses the HTTP standard as a communication protocol and XML with UTF8 decoding for formatting structured data in output and input.

TestREC WebApi meets all standards set by the HTTP communication protocol (RFC 2616), providing a standardized product, based on a data exchange infrastructure that adapts to the aspects of the "Industry 4.0" standard.





## Concrete modular bunker blocks



Concrete modular bunker blocks H=2400 Assembly example

Interlocking Concrete blocks that can be used to assemble a safety perimeter around a testing area. The access door is normally replaced by a “Labyrinth walk”, but on request it is possible to supply an access Steel door with a safety block device. Final painting can be performed after assembling according to customer preferences. In Literature, a 600 mm concrete wall thickness is able to resist to the highest bullets proof tests according to UNI EN 1522 – FB7 class.

Shape	Dimension	Color	Weight
Long	1800 (L) x 600 (D) x 600 (H) mm	Not painted	1550 Kg
Medium	1200 (L) x 600 (D) x 600 (H) mm	Not painted	1040 Kg
Short	600 (L) x 600 (D) x 600 (H) mm	Not painted	520 Kg

**!** NOTE: Easy assembly procedure allow final user to perform assembly without our assistance. Assembly design will be supplied along with bunker blocks.

## Customized bunker protections

Our technical department can design specific bunker protection upon customers specific needs for test purposes. Designed in accord to European rules for explosion proof & bullet proof products. Dimensioning, fabrication and installation on-site, will be under Think' PC PROGETTI responsibility; our ballistic calculation report and fabrication instructions can be submitted for manufacturing on-site by final users. Fabrication details will vary upon product dimension and forecasted explosion energy. A control system will rules the access to the dangerous area, including specific behaviour in case of mandatory “Visual inspection” required to fulfill test procedure. Operators safety is the primary target to be always achieved in all test bench installations, and our technical department can help customers in this matter.





## Sandwich steel / wood modular protection panel



Modular protection perimeter assembly for CUSTOM DIMENSIONS example.

Sandwich panel STEEL/WOOD. Steel thickness 8mm & wood thickness 100mm. Modular assembly with heavy steel plates. Panels to be anchored to the floor. Special dimensions are available on request. A bullet proof inspection window (EN1063 BR6) is available on option for each panel.

In Literature, such asset is able to resist to bullet impact according to EN 1522 up to FB6 class.

Shape	Dimension	Color
Linear module	1000 (L) x 300 (D) (base) x 2400 (H) mm	Yellow, RAL1021
Single gate (Slide)	1500 (L) x 100 (D) x 2200 (H) mm	Yellow, RAL1021
Window (EN1063 BR6)	700 (L) x 700 (H) mm	Crystal Bullet proof



## Light modular protection panel



Modular protection perimeter assembly for CUSTOM DIMENSIONS example.

Light perimeter protection with steel web welded together to support structure. Panel MUST be anchored to the floor.

Shape	Dimension	Color
Linear	1000 (L) x 60 (D) x 2200 (H) mm	WHITE - RAL 7035
Angular	500 (L) x 500 (D) x 2200 (H) mm	WHITE - RAL 7035
Gate (Swing)	2x1000 (L) x 60 (D) x 2200 (H) mm	WHITE - RAL 7035
Gate (Slide)	1500 (L) x 60 (D) x 2200 (H) mm	WHITE - RAL 7035

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