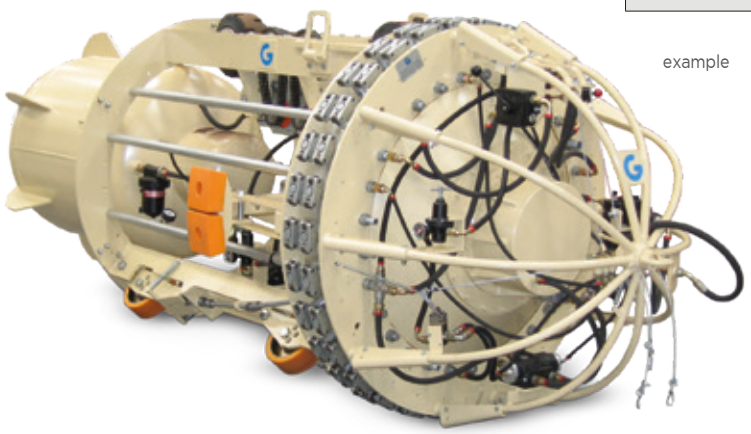
ONSHORE/OFFSHORE INTERNAL LINE-UP CLAMP

GORIZIANE
Innovating Together

Identify Goriziane's ILC

The machine p/n is made up of 13 digits.



Machine Type	ILC Machine range (inch)				OD code	WT in mm (three digits)			Special function		Working temperature	
ILC	0	0	0	0	0	0	0	0	0		0	
					*				**			
example	2	8	3	2	A (28)	2	5	4	A		0	STD
					B (30)	WT= 25,4mm			B		A	ARCTIC
					C (32)				C		H	HOT
									...			

*A: first OD of ILC range;
B: second OD of ILC range;
C: third OD of ILC range.
** See below description.

High performance & reliability

The Pneumatic Internal Line-Up Clamps (ILC) have been designed to support joint pipe sections that have to be welded. The main function of these machines is to correctly locate and couple the ends of pipe sections through the use of suitable fittings. The standard ILC is powered by pneumatic line with compressed air.

The ILC has a modular design, thus it can be adapted for various applications (onshore or offshore) by adding:

» Copper shoes for backing system
» Purging system equipped with two purging seals
» Oxygen analyzer
» Motorization module
» Braking device
» Swivel joint
» Visual laser and 3D camera system
» Other devices, if required

Combining the mentioned above options, different configurations of ILCs can be supplied for special functions:

**A. Manual drive without copper back strip
**B. Manual drive with copper back strip
**C. Electric drive without copper back strip
**D. Electric drive with copper back strip
**E. Electric drive for DJ without copper back strip
**F. Electric drive for DJ with copper back strip

The ILC is designed with a set of through holes that allows the machine to be crossed by electric cables or hoses. The front section is connected to a frame whose head is provided with connection for umbilical interface and power supply. The front structure is connected to the mechanical expander unit that is the core (centre) part of the machine and it can be equipped with or without back strip module.
The mechanical clamping of the pipe sections is assured by means of the above expanders that are arranged on two separate rows. The expanding force exerted by expanders can take up the possible out-of-round condition of some pipe ends. The rear section of the machine is connected to the mechanical expander unit, having support wheels for longitudinal travel of the clamp and the main pneumatic and electric components for electric drive ILC. For double joints a swivel joint with connection for umbilical interface and power supply can be installed.

ACCESSORIES

GORIZIANE
Innovating Together

Purging System



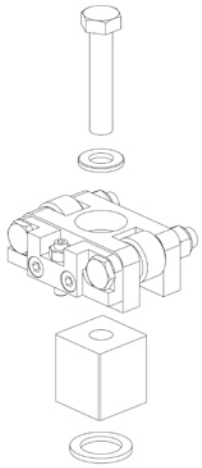
Purging System	ILC Machine range (inch)				OD code	WT in mm (three digits)			Special function		Working temperature	
PRG	0	0	0	0	0	0	0	0	0		0	
					*							
example	2	8	3	2	A (28)	2	5	4	0	STD	0	STD
					B (30)	WT= 25,4mm						
					C (32)							
					if the entire range is covered: 0000							

*A: first OD of ILC range;
B: second OD of ILC range;
C: third OD of ILC range.

The purging system, equipped with two purging seals allowing to isolate the welding chamber from external atmosphere and blowing inside inert gas, can be added to the expander section. With Inflatable seals a better adherence to the pipe occurs, avoiding scratching during ILC movements. As option, an oxigen sensor and analyzer can be provided.

PSK

TYPICAL PSK FOR EXPANDERS



Pipe Setting Kit	ILC range (inch)				OD code	WT in mm (three digits)			Machine to be set		Working temperature	
PSK	0	0	0	0	0	0	0	0	0		0	
Option: CRA CRA ADDITIONAL PIPE SETTING												
example	2	8	3	2	A (28)	2	5	4	C	for ILC	0	STD
					B (30)	WT= 25,4mm			P	for PFM		
					C (32)							



VLC

Visual Laser & Camera	EXG OD Range (inch) if associated				OD code	WT in mm (three digits)			Machine to be set		Working temperature	
VLC	0	0	0	0	0	0	0	0	0		0	
example	2	8	3	2	0	0	0	0	0	STD	0	STD
	...	...	...	...	...	...	...	...	...	...	...	...

The visual laser and camera 3D system is intended for real time acquisition of images and collection of a sequence in Scan Mode to build a stitched image of the scanned region. The system is integrated in the internal line-up clamps by a rotating head, whose movement is controlled by a step motor.