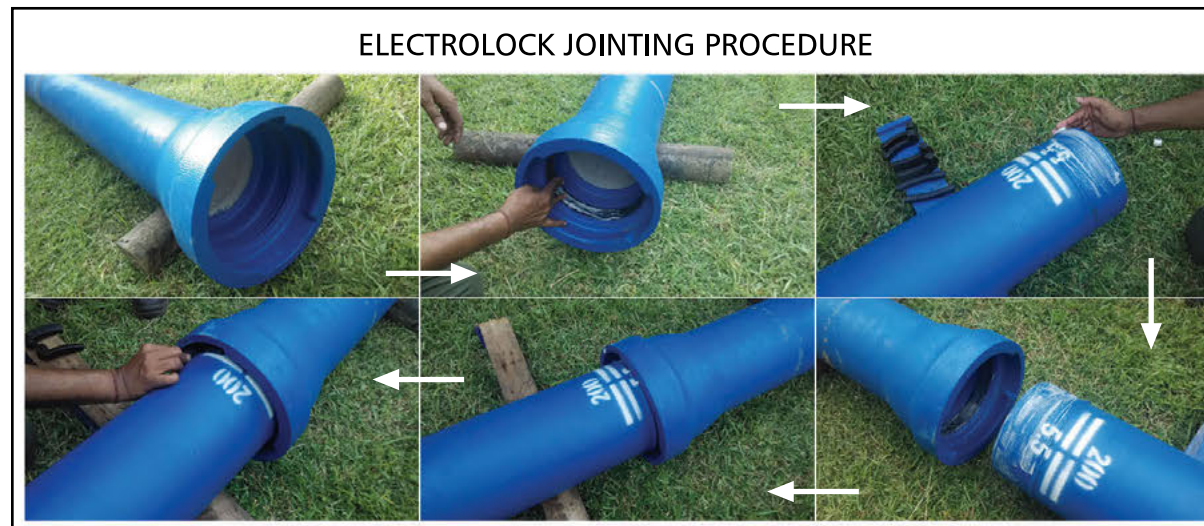


### DISASSEMBLY OF SPIGOT END WITH WELDING BEAD

- Push the spigot end of the pipe up to the stop in the socket.
- Remove the rubber blocks (EPDM rubber piece).
- Remove the metal locks through openings provided for this purpose.



### ELECTROLOCK FITTINGS



### Quality Certification



GERMANY

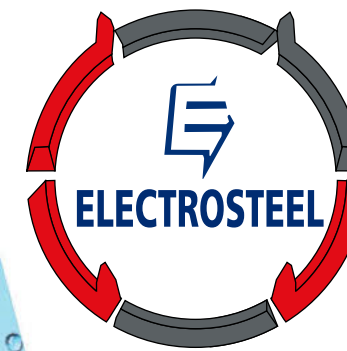


UK

 **ELECTROSTEEL  
CASTINGS LIMITED**

GK Tower, 19 Camac Street, Kolkata - 700 017, India  
Phone : +91-33-2283-9990/4009 0600, Fax : +91-33-22894337-40

[www.electrosteel.com](http://www.electrosteel.com)



# ELECTRO LOCK



**RESTRAINED  
JOINT PIPES &  
FITTINGS**

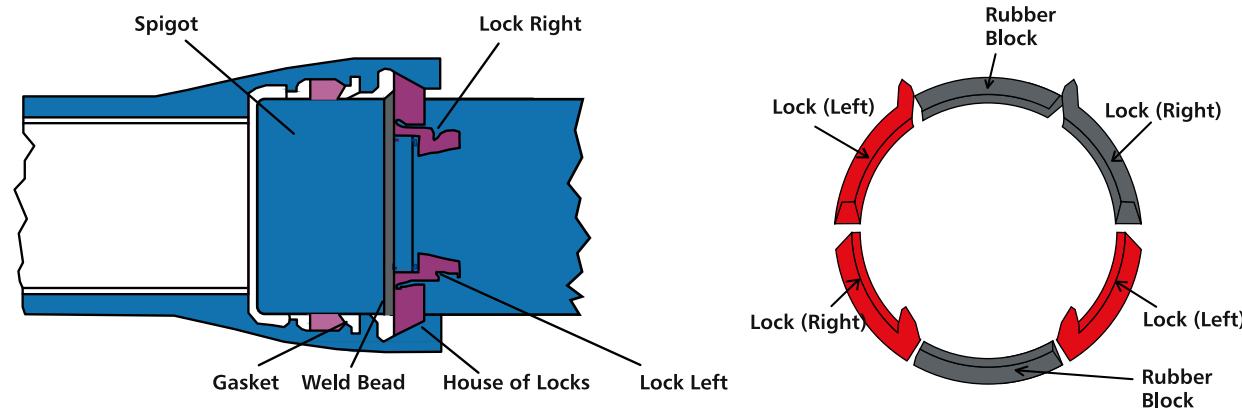
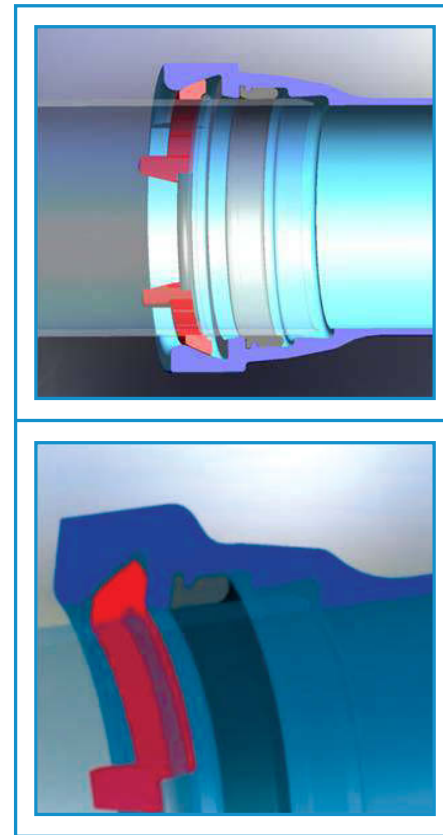
## INTRODUCTION

In a working pipeline thrust forces develop at change of direction which may lead to joint separation. Restrained joint pipe and fittings are used in pressurized Ductile Iron pipelines to prevent separation of the joints due to thrust forces.

For more demanding restraining requirements and particularly at difficult terrains Electrosteel offers the Electrolock self-restrained joint. This double chamber socket joint uses the same gasket as the traditional joint with a second chamber providing anchorage provided by specially designed locking rings which locks with a weld bead made on the jointing spigot. Electrolock joints are already extensively used in various projects. Electrolock pipes are supplied with compatible Electrolock Fittings.

## BASIC FEATURES

- Can withstand very high pressure.
- Double Chamber - one for sealing and the other for restraining axial movement.
- The water sealing is done by push-on gasket and restraining is done by a weld bead and locking bar.
- Normal push-on joint gasket to be used for sealing.
- After assembly, the locking bars in parts are to be inserted in the locking chamber. The weld bead on the spigot gets locked with the locking bar against separation force.
- Can be used for trenchless applications.
- Easy to assemble and disassemble.
- Construction of thrust block can be avoided.
- Suitable for laying in inclined land and hilly area.



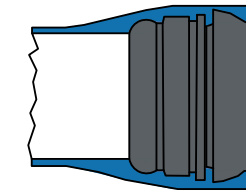
DN	Maximum Angular Deflection	Pressure Application		
		PFA (Bar)	PMA (Bar)	PEA (Bar)
80	5	110	132	137
100	5	110	132	137
125	5	110	132	137
150	5	75	90	95
200	4	63	75.6	80.6
250	4	44	52.8	57.8
300	4	40	48	53
400	3	33	39.6	44.6
500	3	33	39.6	44.6
600	3	30	36	41
700	3	28	33.6	38.6

## INSTALLATION GUIDELINE

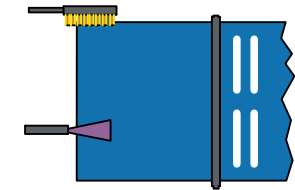
The installation recommendations are valid for pipes and fittings made of ductile cast iron with ELECTROLOCK restrained joint system made as per ISO 2531 / EN 545.

### STEP 1 : Cleaning

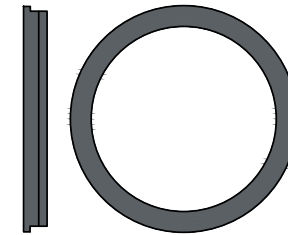
Cleaning of all the parts shown in the diagram. Clean the spigot end to avoid dust and dirt



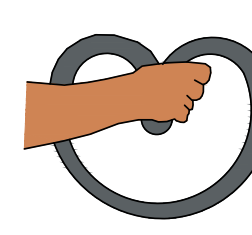
SOCKET CLEANING



CLEANING SPIGOT END



TYTON GASKET



FOLD THE SEAM



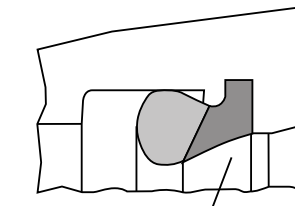
MOUNTING SEAL

### STEP 2 : Main sealing joint assembly

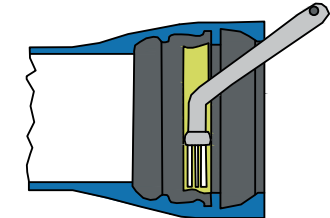
Put the push-on joint gasket inside the groove like normal push-on joint pipes

### STEP 3 : Gasket insertion

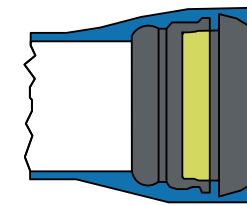
Ensure correct position of the gasket. Apply lubricant on gasket and pipe spigot



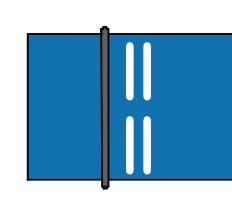
GOOD POSITION OF THE GASKET



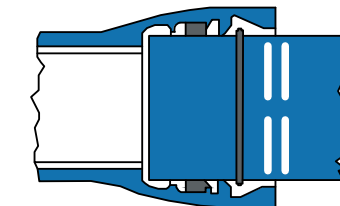
AFTER LUBRICATION



NO ANGULAR DEFLECTION



FIT THE SPIGOT END UP TO THE STOP

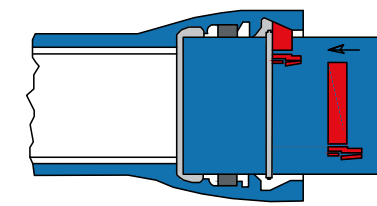


### STEP 4 : Spigot end assembly with welding bead

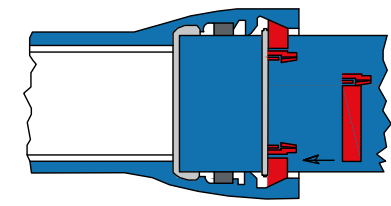
- Align the jointing pipe properly
- Push the spigot end by suitable means until it stops. No angular deflection during assembly. Do not remove the lifting device before the complete connection has been made.

### STEP 5 : Placement of locks

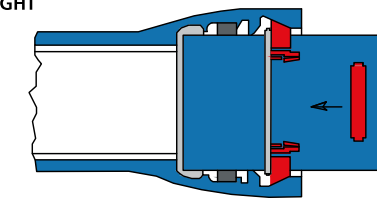
Place the Locking bars and the rubber stopper / blocking. Carefully insert the locks as shown here. Close the gap with Rubber Block.



LOCK RIGHT



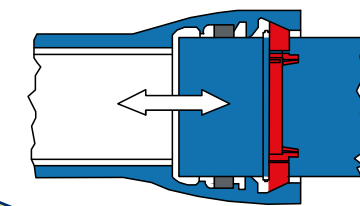
LOCK LEFT



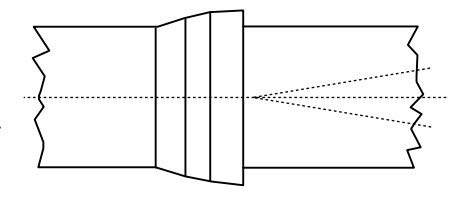
BLOCKING

### STEP 6 : Lock

Withdraw the pipe up to the stop locks. Now the assembly is locked. **Angular deflection** : The angular deflection is to be given only after locking of the assembly.



LOCK ASSEMBLY



ANGULAR DEFLECTION AFTER JOINTING