

## Frialen® Electro Fusion 90° Elbow, UL971 Listed

### Product Description

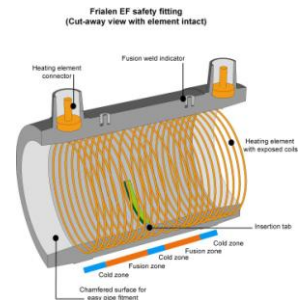
Frialen® electro fusion fittings are safe and reliable proven electro fusion technology using open wire principles. Frialen® electro fusion couplers are the only fittings used in petroleum industry to also be tested and approved for use with natural gas and low pressure gas, thus providing unparalleled quality and protection. When used in conjunction with Petroplas pipe and a Friamat electro fusion welder, it provides a UL971 compliant fuel installation with a 30 year life span.

Frialen® fittings are available in sizes from ½" to 30" nominal bore. Frialen 90° Elbows conform to 2 times the ISO requirements for electro fusion fittings, making it the safest electro fusion fitting in the petroleum industry.



### Applications

- Service stations
- Marina's
- Fuel Terminals
- Moist and marshy areas
- Refineries
- Harbors
- Airports
- Non-Contaminated and Contaminated sites



### Specifications

- Fitting Type : Matched electro fusion fittings are utilized throughout the pipeline system in order to join the various pieces. Deep sockets and 'safe' low voltage operation (42V), applied through dedicated ancillary equipment ensures maximum joint integrity. Fusion indicators monitor the joint melt pressure, while absolute security of the weld is ensured using the fittings bar code feature in conjunction with the fully automatic Friamat Control Box Unit.
- Electro Fusion Machine : Friamat® electro fusion machine with memory, printing and error reporting
- Temperature range : Fittings can be worked with at ambient temperatures between -24°F and 160°F.
- Pipe fusion range : The fittings can be fused to pipe of SDR stages 17.6 to 7.4 in accordance with DIN 8074 (E), ISO 4437, pr EN 1555 and DIN EN 12201 (E).  
232 psi maximum
- Operating pressures 232 psi or 5 times operating pressures
- Test pressure
- Approved Fuel Types : All Petroleum Products (Motor Vehicle Fuels, High Blend Fuels, Concentrated Fuels, Aviation & Marine Fuels) E85 and Biodiesel

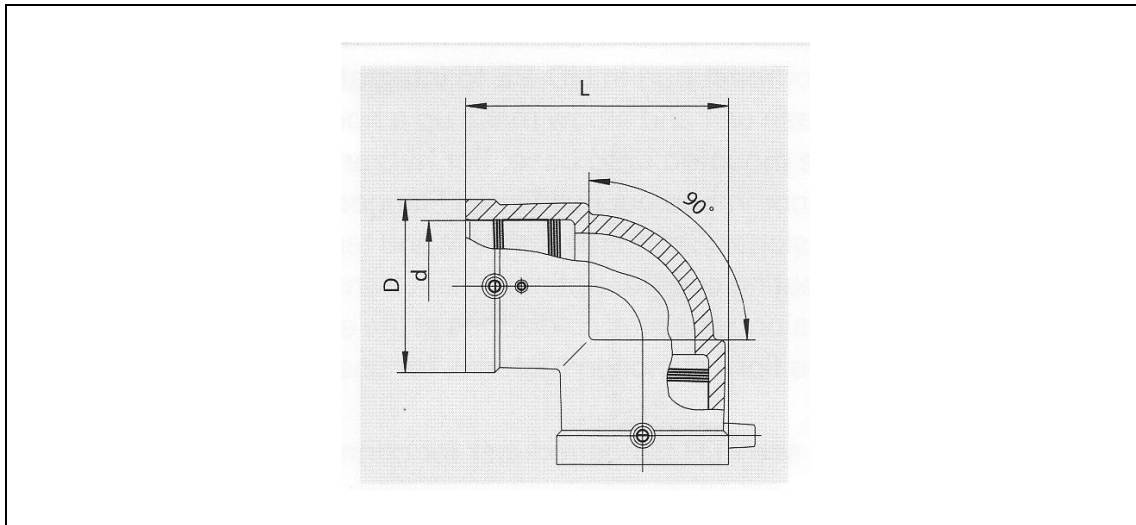
### Installation

Installation, use, and maintenance of all Frialen® products shall be in accordance with the manufacturer's recommendations, State and county approvals. In event of conflicts, the stricter requirement shall govern. (IPP installation manual available directly from IPP, or at [www.innovativepetroleum.com](http://www.innovativepetroleum.com)) All operators to be IPP certified on both the fittings and electro fusion machine

### Certifications/Approvals

- UL 971 approved, File # MH45430
- Institute of Petroleum Cert # BC63/1010/98/001 And cert # BC63/0115/2000/001
- Shell Int. Procurement Cert. Cert # BC63/1010/98/002
- State of Florida EQ 683 and EQ 617 – and Derm Approval
- State of Michigan MUSTR – Rule 9, subsections 280.20 (b)
- New York City Fire Dept. CoA 5117
- DOT 192 and 195 On waiver letter per project
- DVGW Permit VP 607, with decisions DV-8601AU2248, DV-8606AU2249 and DV-8611AU2250
- Factory Permit DIN EN 10 204-3.1
- State of California CARB, State Fire Marshall Cert # GVRC 005:060:001

Note : specifications subject to change without notice  
MARCH 08



Diam. NB* inches	Diam OD** Metric	Part #	Dim D		Dim L		Weigh Kg/each	Weigh Lbs/each
			mm	In.	mm	In.		
1"	32	<a href="#">612093</a>	49	1.93"	85	3.35"	0.104	0.23
1¼"	40	<a href="#">612095</a>	58	2.28"	102	4.02"	0.159	0.35
1½"	50	<a href="#">612097</a>	70	2.76"	118	4.65"	0.212	0.47
2"	63	<a href="#">612099</a>	84	3.31"	128	5.04"	0.313	0.69
2½"	75	<a href="#">612101</a>	98	3.86"	151	5.94"	0.595	1.31
3"	90	<a href="#">612103</a>	117	4.61"	180	7.09"	0.953	2.10
4"	110	<a href="#">612105</a>	142	5.59"	222	8.74"	1.563	3.44
5"	125	<a href="#">612107</a>	158	6.22"	240	9.45"	2.029	4.46

(\*) Nominal Bore

(\*\*) Outside Diameter

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