

Total Hydro Pipeline Solutions

design • manufacture • install
commission • repair



RADIUS
Systems

Pioneers in PE Pipe Technologies

Total Hydro Pipeline Solutions

Radius Systems offers pipe, fittings and services to achieve even the most complex of project specifications. From initial design to final completion, Radius can offer you the full hydro solutions package:



- **Manufacturing**

Facilities capable of manufacturing up to and including 1200mm diameter pipes with a range of SDR ratings and system requirements



- **Delivery**

By land, water, rail and air - over the years Radius has supported all three routes, including delivering pipes to the most remote locations



- **Installation**

RadiusPLUS provides fully qualified, certificated installation expertise, carrying out butt fusion and electrofusion welding using the latest electronic equipment



- **Bespoke fabrications**

With in-house fabrication facilities, RadiusPLUS offers an extensive range of fabricated fittings - from simple tees and elbows to complex 'one-offs'



- **Special services**

RadiusPLUS services include branch saddles for air valves and washouts which help maintain the operation of the pipeline



- **Pressure testing**

RadiusPLUS provides testing facilities for systems provided by other installers



Pipe

Material:

Black PE100

Diameter range:

250 - 1200mm



Manufactured in accordance with:

BS EN12201

Plastic piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE) - Part 2: Pipes

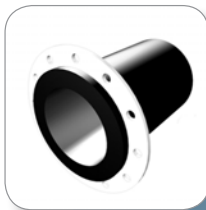
Lengths available:

6, 12 and 13.5m. Other lengths are available by special order



Pipes can be manufactured to various SDR and pressure ratings, in diameters up to 1200mm

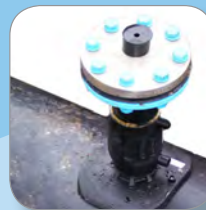
Compatible Fittings



Stub Flange



Mega Tee



Air Valve Branch Saddle Connections



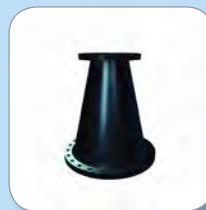
Bespoke Fabrications



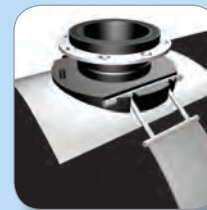
Mitred Bend



AquaGrip™



Metallic Fitting



Branch Saddle Connections



EF Coupler



Y Junction



Reducer

Please contact us for more information on the hydro fittings range

System Benefits

- Corrosion free pipeline material**
 Unlike metallic systems, polyethylene remains corrosion-free throughout its operational life
- Tailor made pipeline solution**
 Pipe and fittings solutions tailored to the system's requirements
- One piece pipeline**
 Reduces the requirement for concrete thrust blocks
- Hydraulically smooth**
 Virtually no loss of hydraulic properties over time
- Pipeline flexibility**
 Enables onsite cold bending of polyethylene pipes
- Excellent abrasion resistance**
 When tested*, PE pipes showed an increased resistance to abrasion over steel pipe systems for slurry pipeline applications



- Extensive fittings range**
 Radius Systems offers a complete functional system of pipe and fittings
- Longer pipeline lengths**
 Reduces the number of joints within the pipeline

* Transport & Road Research Laboratory Report SR 773

Pipe Specifications

OD (mm)	SDR 11 16 bar		SDR 13.6 12.5 bar		SDR 17 10 bar		SDR 21 8 bar		SDR 26 6 bar		SDR 33 5 bar		SDR 41 4 bar	
	ID (mm)	kg/m	ID (mm)	kg/m	ID (mm)	kg/m	ID (mm)	kg/m	ID (mm)	kg/m	ID (mm)	kg/m	ID (mm)	kg/m
400	324	42	339	35	351	29	360	23	368	19	375	16	380	13
450	365	53	381	44	395	36	406	29	415	24	422	20	428	16
500	406	65	424	54	439	44	451	36	461	30	469	24	475	19
560	454	82	475	68	491	56	505	45	516	37	525	30	532	24
630	511	103	534	85	553	70	568	57	581	47	591	38	599	30
710	577	132	603	109	624	89	641	73	655	59	667	48	676	39
800	-	-	680	138	703	113	723	92	739	75	752	61	762	49
900	-	-	-	-	791	143	813	116	831	95	845	77	857	61
1000	-	-	-	-	879	176	904	144	924	116	940	94	952	76
1100	-	-	-	-	968	211	994	174	1016	143	1034	113	1048	92
1200	-	-	-	-	-	-	1085	207	1108	167	1128	135	1143	109

Pipe internal diameters (ID) are rounded down to the nearest mm. ID values are calculated by deducting 2 x mean wall thickness from the mean outside diameter (OD)

Weights are rounded up to the nearest kg and are based on mean OD and mean wall thickness

Diameters below 400mm are also available

Pipes are available in 6, 12 and 13.5m lengths as standard please contact your local sales manager for other lengths and diameters



RADIUS PLUS

Part of the Radius Systems Group

Services, Training and Equipment Hire for Hydro Projects

Our services division, RadiusPLUS offers a range of solutions to ensure you maximise time and save costs on your project:

- Onsite butt fusion welding and electrofusion jointing**
 Expertise in welding and jointing using the latest electronic equipment
- Onsite branch saddle installations for air valves and washouts**
 Saddle installations to maintain pipeline operation
- Pipeline inspection and maintenance services**
 Existing pipelines can be inspected and problems targeted
- Pressure testing**
 Pressure tests can be performed on pipelines fitted by any installer
- Bespoke design services**
 Optimise your use of materials based on system hydraulics
- Buried pipeline structural design**
 Minimise costs and environmental impact
- Fusion welding training and equipment hire**
 Support services for installers



To find out more about service and training packages from RadiusPLUS, please call:

01773 582312

or visit:

www.radius-plus.co.uk



Projects



Tearnait Hydro Scheme Hydroplan, Tearnait Estate, Nr Fort William

700m of 1100mm SDR 41
1.3km of 630mm SDR 41

The Tearnait project had a number of logistical challenges, with a ferry crossing and pipes requiring helicopter transportation to strategic locations along the route.



West Merkland Hydro Scheme Hydroplan, West Merkland Estate, Argyll

1 km of 1200mm SDR 41

Our largest manufactured pipe to date. 13.5m sticks of 1200mm pipe were supplied to site. The longer pipe lengths offered a reduction in the number of pipe welds undertaken onsite.



Inverliever Hydro Project Inverliever Estate, Ford Argyll

1.6km of 900mm SDR 26

A pipeline was built to transfer water from the River Inverliever down to the hydro electric power plant generating turbine. The 900mm SDR 26 pipe provided by Radius was able to handle the increasing pressure created as the pipe descends towards the turbine.

Radius Systems - Pioneers in PE Pipe Technology

Radius Systems is a leading force in the design and development of plastic pipes for the utilities and construction industries. We take care of the entire pipe lifecycle - from design and manufacture through to installation and repair, our products are used in more than 100 countries around the world.

○ Manufacturing facilities

With 4 production sites, we have complete control over quality and the ability to meet the expectations of our customers

○ Innovative approach

We are leaders in our field with a history of research and new product development. Practicality, durability and adaptability are all high on our agenda and that of our customers

○ Flexible product and service provision

Our comprehensive range of services is designed to fit the variable demands of our client's developments including pipes, fittings, equipment sale or hire, training and support services

○ Reliability and safety

With over 40 years of design and manufacture, our clients know that they can count on us to meet not just their product and service needs, but also their delivery and safety requirements

○ Outstanding customer service

We have a dedicated Customer Services team who meet the exacting requirements of our customers in the UK and overseas. Our service isn't just about the delivery of products; contact our team if you have a product or installation enquiry or a query post-delivery



For more information please visit our website:
www.radius-systems.com or contact us:

Head Office and Export Sales:

Radius Systems Ltd
Radius House
Berristow Lane
South Normanton, Alfreton
Derbyshire
DE55 2JJ UK
t: +44 (0)1773 582329
e: sales@radius-systems.com

UAE and GGC Sales:

RadiuSenaat (Piping and Fittings) LLC
ICAD Business Hub B401
P.O. Box 93278
Mussafah
Abu Dhabi
United Arab Emirates
t: +971 2 550 7153
e: salesme@radiusenaat.com

Northern Ireland and Republic of Ireland Sales:

Radius Plastics Ltd
Scarva Road Industrial Estate
Banbridge
County Down
BT32 3QD UK
t: +44 (0)28 4066 9999
e: info@radius-systems.com

Stockist Stamp