



# PE-RT Piping Systems

# About Edoburg

Edoburg is a structured, multi-category global supplier of certified infrastructure materials, serving contractors, distributors, and institutional buyers across regulated global markets. A division of **Edoburg Downes Pvt. Ltd.**, the company operates with a clear focus on tested quality, export compliance, and long-term delivery consistency.

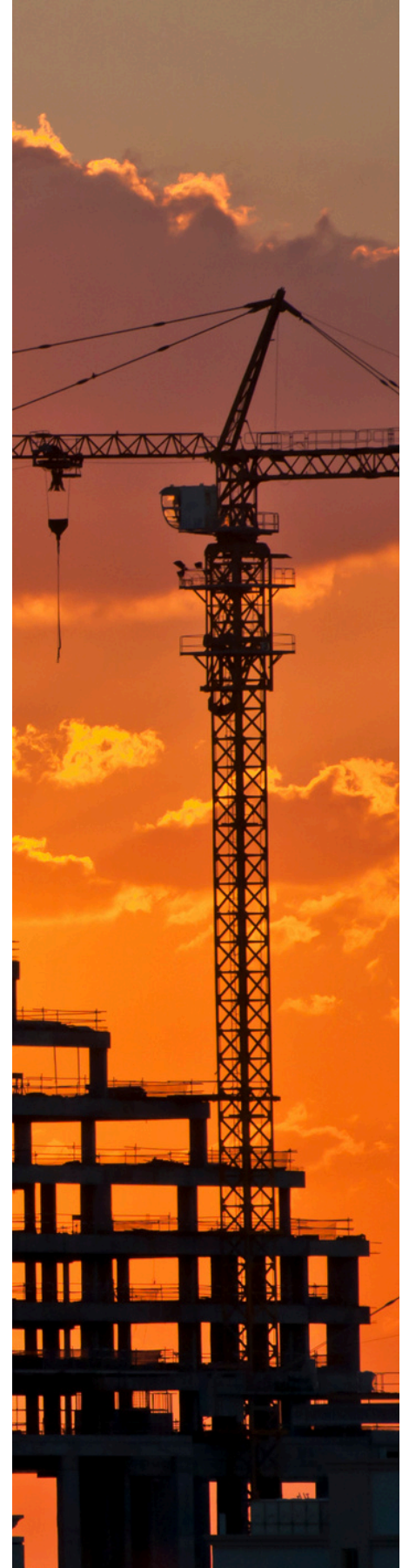
Our product portfolio spans over 10,000 SKUs across a wide range of categories including plastic piping systems, thermoplastic and composite pipelines, metal pipes and sections, drainage and utility systems, industrial components, and specialized engineered solutions for global projects.

All Edoburg-supplied products are manufactured in audited facilities and conform to international standards such as ASTM, CSA, ISO, IS, AS/NZS, and EN, depending on the target market. Each order is backed by full documentation support — including batch test reports, packing lists, Certificates of Origin, and private labelling when required.

We operate with export-ready processes, offering mixed container loads, low or no minimum order quantity, and market-specific packaging and compliance labelling. Our systems are designed to meet the expectations of professional buyers who require traceability, repeatability, and standardization across multiple geographies.

With clients across North America, Europe, the Middle East, Africa, and Asia-Pacific, Edoburg is positioned as a dependable global supplier — combining technical competence with structured commercial execution.

We don't just deliver material. **We supply what builds.**





# EDOBURG

SUPPLY WHAT BUILDS



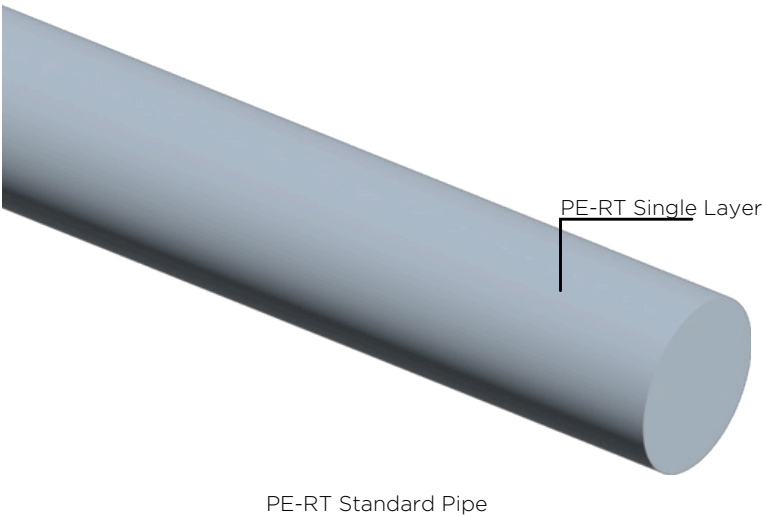
# Properties and Technical Sheet

## PE-RT Piping Systems

Manufacturing Origin: India

### Technical Characteristics

Pipe Stucture	Single Layered Standard PE-RT Pipe
Diameters (mm)	d20, d25, d32, d40, d50, d63, d75, d90, d110, d125, d160
Pipe Classes	Class 1 : For Hot Water Supply at 60°c Class 2 : For Hot Water Supply at 70°c Class 4 : Under-floor Heating and Low temperature radiators Class 5 : High temperatures radiators
Pipe Length	Straight length - 3m / 10 foot, Coil - 30m / 100 foot.
Jointing Methods	Push-fit, Socket Fusion Welding, Flange Connection, Mechanical threaded connection
Color	Grey
Chemical Resistance	Resistant to organic and inorganic chemical environments for pH values between 2 and 12
Installation Temperature	Minimum: +5oC Maximum: +40oC
Operating Temperature	Standard PE-RT Pipes: -30°C - +95°C
Standards	DIN EN ISO 22391 -1,2, BS 6920-1, ISI 9845
Thermal Expansion Coefficient	0.18 mm/m°K
Thermal Conductivity Coefficient	0.42-0.48 W/m°K
Approvals and Certificates	UK: WRAS, India: ISI, BIS



# PE-RT Pipe Range

## PE-RT Pipe Coil

### PN16 / SDR7.4 / S 3.2 PE-RT PIPE COIL

Code	Size (mm)	Length (m)	Color
PRTC101	20mm	30m / 100 Foot	Grey
PRTC102	25mm	30m / 100 Foot	Grey
PRTC103	32mm	30m / 100 Foot	Grey

### PN20/SDR 6/S2.5 PE-RT PIPE COIL

Code	Size (mm)	Length (m)	Color
PRTC201	20mm	30m / 100 Foot	Grey
PRTC202	25mm	30m / 100 Foot	Grey
PRTC203	32mm	30m / 100 Foot	Grey

## PE-RT Pipe Straight Lenght

### PN10 / SDR11 / S5 PE-RT PIPE COIL

Code	Size (mm)(DxT)	Length (m)	Package	Color
PRTL001	20x2.0	3mm	75	Grey
PRTL002	25x2.3	3mm	50	Grey
PRTL003	32x2.9	3mm	30	Grey
PRTL004	40x3.7	3mm	15	Grey
PRTL005	50x4.6	3mm	10	Grey
PRTL006	63x5.8	3mm	7	Grey
PRTL007	75x6.8	3mm	5	Grey
PRTL008	90x8.2	3mm	5	Grey
PRTL009	110x10.0	3mm	3	Grey
PRTL010	125x11.40	3mm	3	Grey
PRTL011	160x14.60	3mm	1	Grey

### PN16 / SDR7.4 / S 3.2 PE-RT PIPE COIL

Code	Size (mm)(DxT)	Length (m)	Package	Color
PRTL101	20x2.8	3mm	75	Grey
PRTL102	25x3.5	3mm	50	Grey
PRTL103	32x4.4	3mm	30	Grey
PRTL104	40x5.5	3mm	15	Grey
PRTL105	50x6.9	3mm	10	Grey
PRTL106	63x8.6	3mm	7	Grey
PRTL107	75x10.3	3mm	5	Grey
PRTL108	90x12.3	3mm	5	Grey
PRTL109	110x15.1	3mm	3	Grey
PRTL110	125x16.90	3mm	3	Grey
PRTL111	160x21.9	3mm	1	Grey

### PN10 / SDR11 / S5 PE-RT PIPE COIL

Code	Size (mm)(DxT)	Length (m)	Package	Color
PRTL201	20x3.4	3mm	75	Grey
PRTL202	25x4.2	3mm	50	Grey
PRTL203	32x5.4	3mm	30	Grey
PRTL204	40x6.7	3mm	15	Grey
PRTL205	50x8.3	3mm	10	Grey
PRTL206	63x10.5	3mm	7	Grey
PRTL207	75x12.5	3mm	5	Grey
PRTL208	90x15.0	3mm	5	Grey
PRTL209	110x18.3	3mm	3	Grey
PRTL210	125x20.8	3mm	3	Grey
PRTL211	160x26.6	3mm	1	Grey

# PE-RT Fittings Range

## Push-fit Fittings

### SOCKET



Code	Size	Package (pcs/crtn)
PBSK001	20mm	100
PBSK002	25mm	80
PBSK003	32mm	60

### ELBOW 90°



Code	Size	Package (pcs/crtn)
PBEL001	20mm	60
PBEL002	25mm	50
PBEL003	32mm	40

### ELBOW 45°



Code	Size	Package (pcs/crtn)
PBEF001	20mm	60
PBEF002	25mm	50
PBEF003	32mm	40

### MALE THREAD ELBOW



Code	Size	Package (pcs/crtn)
PBME001	20x1/2"	70
PBME002	25x1/2"	50

### FEMALE THREAD ELBOW



Code	Size	Package (pcs/crtn)
PBFE001	20x1/2"	70
PBFE002	25x1/2"	50

### WALL PLATE M-THREAD ELBOW



Code	Size	Package (pcs/crtn)
PBWM001	20x1/2"	72
PBWM002	25x1/2"	50

### WALL PLATE F-THREAD ELBOW



Code	Size	Package (pcs/crtn)
PBWF001	20x1/2"	72
PBWF002	25x1/2"	50

### WALL PLATE Brass F-THREAD ELBOW



Code	Size	Package (pcs/crtn)
PRSWF001	20x1/2"	150
PRSWF002	25x1/2"	50

### STOP VALVE



Code	Size	Package (pcs/crtn)
PBSTV001	20mm	70
PBSTV002	25mm	50

### TEE



Code	Size	Package (pcs/crtn)
PBTE001	20mm	80
PBTE002	25mm	50
PBTE003	32mm	30

### TEE MALE THREAD



Code	Size	Package (pcs/crtn)
PBTM001	20x1/2"	60
PBTM002	25x1/2"	50
PBTM003	32x1/2"	40

### TEE FEMALE THREAD



Code	Size	Package (pcs/crtn)
PBTF001	20x1/2"	60
PBTF002	25x1/2"	50
PBTF003	32x1/2"	40

### MANIFOLD TEE



Code	Size
PBMT001	25x20x25mm
PBMT002	32x20x32mm
PBMT003	32x25x32mm

### CONCEALED STOP VALVE



Code	Size
PBCSV001	20mm
PBCSV002	25mm

  
A

  
B

  
C

### MALE THREAD ADAPTOR



Code	Size	Package (pcs/crtn)
PBAM001	20x1/2"	100
PBAM002	25x3/4"	80
PBAM003	32x1"	60

### FEMALE THREAD ADAPTOR



Code	Size	Package (pcs/crtn)
PBAF001	20x1/2"	100
PBAF002	25x3/4"	80
PBAF003	32x1"	60

### BRASS MALE THREAD ADAPTOR



Code	Size	Package (pcs/crtn)
PRSAM001	20x1/2"	250
PRSAM002	25x1/2"	200
PRSAM003	25x3/4"	140
PRSAM004	32x1"	100

### BRASS FEMALE THREAD ADAPTOR



Code	Size	Package (pcs/crtn)
PRSAF001	20x1/2"	200
PRSAF002	25x1/2"	150

### REDUCER



Code	Size
PBRD001	25/20mm
PBRD002	32/25mm
PBRD003	32/20mm

### TANK CONNECTOR



Code	Size
PBTC001	32x1"

### END CAP



Code	Size
PBEC001	20mm
PBEC002	25mm
PBEC003	32mm

## CROSSOVER BEND



Code	Size
PBCB001	20mm
PBCB002	25mm
PBCB003	32mm

## ENTRY SLEEVE



Code	Size	Package (pcs/crtn)
PBES001	20mm	500
PBES002	25mm	400
PBES003	32mm	300

## GRAB RING



Code	Size	Package (pcs/crtn)
PSSG001	20mm	25
PSSG002	25mm	25
PSSG003	32mm	25

## WALL CLAMP



Code	Size	Package (pcs/crtn)
PTWC001	20mm	500
PTWC002	25mm	400
PTWC003	32mm	300

## SPACER WASHER



Code	Size	Package (pcs/crtn)
PRTS001	20mm	25
PRTS002	25mm	25
PRTS003	32mm	25

## LONG PIPE PLUG



Code	Size	Package (pcs/crtn)
P RTP001	1/2"	200

## PIPE PLUG



Code	Size	Package (pcs/crtn)
P RTP101	1/2"	300

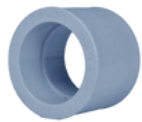
## O-RING



Code	Size	Package (pcs/crtn)
PDMO001	20mm	25
PDMO002	25mm	25
PDMO003	32mm	25

# Socket Fusion Fittings

## COUPLER



Code	Size	Package (pcs/crtn)
PCR001S	20mm	1600
PCR002S	25mm	100
PCR003S	32mm	560
PCR004S	40mm	260
PCR005S	50mm	200
PCR006S	63mm	100
PCR007S	75mm	60
PCR008S	90mm	40
PCR009S	110mm	24
PCR010S	125mm	20
PCR011S	160mm	14

## EQUAL TEE



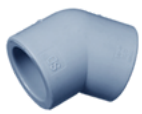
Code	Size	Package (pcs/crtn)
PTE001S	20mm	800
PTE002S	25mm	480
PTE003S	32mm	230
PTE004S	40mm	120
PTE005S	50mm	70
PTE006S	63mm	40
PTE007S	75mm	30
PTE008S	90mm	18
PTE009S	110mm	9
PTE010S	125mm	6
PTE011S	160mm	4

## ELBOW 90°



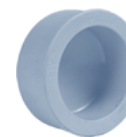
Code	Size	Package (pcs/crtn)
PEN001S	20mm	1000
PEN002S	25mm	650
PEN003S	32mm	300
PEN004S	40mm	150
PEN005S	50mm	100
PEN006S	63mm	60
PEN007S	75mm	30
PEN008S	90mm	20
PEN009S	110mm	12
PEN010S	125mm	10
PEN011S	160mm	5

## ELBOW 45°



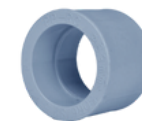
Code	Size	Package (pcs/crtn)
PEF001S	20mm	1500
PEF002S	25mm	750
PEF003S	32mm	380
PEF004S	40mm	300
PEF005S	50mm	150
PEF006S	63mm	70
PEF007S	75mm	40
PEF008S	90mm	22
PEF009S	110mm	15
PEF010S	125mm	10
PEF011S	160mm	7

## END CAP



Code	Size	Package (pcs/crtn)
PEC001S	20mm	2700
PEC002S	25mm	1500
PEC003S	32mm	800
PEC004S	40mm	520
PEC005S	50mm	250
PEC006S	63mm	150
PEC007S	75mm	100
PEC008S	90mm	60
PEC009S	110mm	36
PEC010S	125mm	25
PEC011S	160mm	20

## REDUCER ELBOW



Code	Size	Package (pcs/crtn)
PRE001S	25/20	900
PRE002S	32/20	500
PRE003S	32/25	480
PRE004S	40/32	200
PRE005S	40/25	200
PRE006S	40/20	200
PRE007S	50/40	60
PRE008S	50/32	60
PRE009S	50/25	60



## MALE THREAD COUPLER



Code	Size	Package (pcs/crtn)
PCM001S	20x1/2"	320
PCM002S	20x3/4"	200
PCM003S	25x1/2"	200
PCM004S	25x3/4"	200
PCM005S	32x1/2"	200
PCM006S	32x3/4"	200
PCM007S	32x1"	150
PCM008S	40x1-1/4"	60
PCM009S	50x1-1/2"	50
PCM010S	63x2"	40
PCM011S	75x2-1/2"	24
PCM012S	90x3"	14
PCM031S	110x4"	6

## WALL PLATE MALE THREAD ELBOW



Code	Size	Package (pcs/crtn)
PWM001S	20x1/2"	1000
PWM002S	25x1/2"	800

## MALE THREAD TEE



Code	Size	Package (pcs/crtn)
PTM001S	20x1/2"	225
PTM002S	25x1/2"	160
PTM003S	25x3/4"	120
PTM004S	32x1/2"	130
PTM005S	32x3/4"	100
PTM006S	32x1"	70

## CROSS OVER BEND



Code	Size
PCB001S	20mm
PCB002S	25mm

## BRASS UNION



Code	Size	Package (pcs/crtn)
PUN001S	20mm	200
PUN002S	25mm	150
PUN003S	32mm	100
PUN004S	40mm	80
PUN005S	50mm	50
PUN006S	63mm	20

## FEMALE THREAD COUPLER



Code	Size	Package (pcs/crtn)
PCF001S	20x1/2"	320
PCF002S	20x3/4"	200
PCF003S	25x1/2"	200
PCF004S	25x3/4"	200
PCF005S	32x1/2"	200
PCF006S	32x3/4"	200
PCF007S	32x1"	150
PCF008S	40x1-1/4"	60
PCF009S	50x1-1/2"	50
PCF010S	63x2"	40
PCF011S	75x2-1/2"	24
PCF012S	90x3"	14
PCF031S	110x4"	6

## WALL PLATE FEMALE THREAD ELBOW



Code	Size	Package (pcs/crtn)
PWF001S	20x1/2"	1000
PWF002S	25x1/2"	800

## FEMALE THREAD TEE



Code	Size	Package (pcs/crtn)
PTF001S	20x1/2"	250
PTF002S	25x1/2"	200
PTF003S	25x3/4"	160
PTF004S	32x1/2"	120
PTF005S	32x3/4"	120
PTF006S	32x1"	80
PTF007S	40x1-1/4"	40

## BYPASS BEND



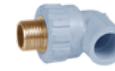
Code	Size	Package (pcs/crtn)
PBB001S	20mm	300
PBB002S	25mm	180
PBB003S	32mm	80

## PLASTIC UNION



Code	Size	Package (pcs/crtn)
PUP001S	20mm	600
PUP002S	25mm	300
PUP003S	32mm	250
PUP004S	40mm	150
PUP005S	50mm	70
PUP006S	63mm	40

## MALE THREAD ELBOW



Code	Size	Package (pcs/crtn)
PEM001S	20x1/2"	320
PEM002S	25x1/2"	240
PEM003S	25x3/4"	200
PEM004S	32x1/2"	120
PEM005S	32x3/4"	120
PEM006S	32x1"	100

## FEMALE THREAD ELBOW



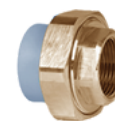
Code	Size	Package (pcs/crtn)
PET001S	20x1/2"	320
PET002S	25x1/2"	240
PET003S	25x3/4"	200
PET004S	32x1/2"	120
PET005S	32x3/4"	120
PET006S	32x1"	100
PET007S	40x1-1/4"	50
PET008S	50x1-1/2"	30

## MALE THREAD UNION



Code	Size	Package (pcs/crtn)
PUM001S	20mm	200
PUM002S	25mm	200
PUM003S	32mm	100
PUM004S	40mm	80
PUM005S	50mm	50
PUM006S	63mm	20

## FEMALE THREAD UNION



Code	Size	Package (pcs/crtn)
PUF001S	20mm	240
PUF002S	25mm	240
PUF003S	32mm	150
PUF004S	40mm	80
PUF005S	50mm	60
PUF006S	63mm	20

## FLANGE



Code	Size	Package (pcs/crtn)
PFL001S	32mm	100
PFL002S	40mm	75
PFL003S	50mm	60
PFL004S	63mm	60
PFL005S	75mm	45
PFL006S	90mm	40
PFL007S	110mm	36
PFL008S	125mm	20
PFL009S	160mm	15



## MALE THREAD COUPLER



Code	Size	Package (pcs/crtn)
PCM001S	20x1/2"	320
PCM002S	20x3/4"	200
PCM003S	25x1/2"	200
PCM004S	25x3/4"	200
PCM005S	32x1/2"	200
PCM006S	32x3/4"	200
PCM007S	32x1"	150
PCM008S	40x1-1/4"	60
PCM009S	50x1-1/2"	50
PCM010S	63x2"	40
PCM011S	75x2-1/2"	24
PCM012S	90x3"	14
PCM031S	110x4"	6

## REDUCER



Code	Size	Package (pcs/crtn)
PRR001S	25/20	1200
PRR002S	32/20	720
PRR003S	32/25	660
PRR004S	40/20	600
PRR005S	40/25	560
PRR006S	40/32	360
PRR007S	50/20	300
PRR008S	50/25	300
PRR009S	50/32	300
PRR010S	50/40	200
PRR011S	63/32	150
PRR012S	63/40	120
PRR013S	63/50	100
PRR014S	75/40	90
PRR015S	75/50	70
PRR016S	75/63	60
PRR017S	90/50	60
PRR018S	90/63	50
PRR019S	90/75	40
PRR020S	110/63	39
PRR021S	110/75	39
PRR022S	110/90	39
PRR023S	125/110	30
PRR024S	160/90	20
PRR025S	160/110	20
PRR026S	160/125	20

## FEMALE THREAD COUPLER



Code	Size	Package (pcs/crtn)
PCF001S	20x1/2"	320
PCF002S	20x3/4"	200
PCF003S	25x1/2"	200
PCF004S	25x3/4"	200
PCF005S	32x1/2"	200
PCF006S	32x3/4"	200
PCF007S	32x1"	150
PCF008S	40x1-1/4"	60
PCF009S	50x1-1/2"	50
PCF010S	63x2"	40
PCF011S	75x2-1/2"	24
PCF012S	90x3"	14
PCF031S	110x4"	6

## REDUCER TEE



Code	Size	Package (pcs/crtn)
PTR001S	25/20/25	540
PTR002S	32/20/32	280
PTR003S	32/25/32	250
PTR004S	40/20/40	200
PTR005S	40/25/40	150
PTR006S	40/32/40	130
PTR007S	50/20/50	120
PTR008S	50/25/50	100
PTR009S	50/32/50	80
PTR010S	50/40/50	80
PTR011S	63/25/63	72
PTR012S	63/32/63	72
PTR013S	63/40/63	72
PTR014S	63/50/63	52
PTR015S	75/25/75	40
PTR016S	75/32/75	40
PTR017S	75/40/75	40
PTR018S	75/50/75	32
PTR019S	75/63/75	32
PTR020S	90/32/90	24
PTR021S	90/40/90	24
PTR022S	90/50/90	24
PTR023S	90/63/90	16
PTR024S	90/75/90	16
PTR025S	110/32/110	14
PTR026S	110/40/110	14
PTR027S	110/50/110	14
PTR028S	110/63/110	12
PTR029S	110/75/110	12
PTR030S	110/90/110	12
PTR031S	125/63/125	12
PTR032S	125/75/125	12
PTR033S	125/90/125	12
PTR034S	125/110/125	12
PTR035S	160/63/160	5
PTR036S	160/75/160	5
PTR037S	160/90/160	5
PTR038S	160/110/160	5

## MALE THREAD ELBOW



Code	Size	Package (pcs/crtn)
PEM001S	20x1/2"	320
PEM002S	25x1/2"	240
PEM003S	25x3/4"	200
PEM004S	32x1/2"	120
PEM005S	32x3/4"	120
PEM006S	32x1"	100

## FLANGE CORE



Code	Size	Package (pcs/crtn)
PFC001S	32mm	500
PFC002S	40mm	350
PFC003S	50mm	300
PFC004S	63mm	200
PFC005S	75mm	120
PFC006S	90mm	80
PFC007S	110mm	50
PFC008S	125mm	25
PFC009S	160mm	22

## WELD SADDLE (PLAIN)



Code	Size	Package (pcs/crtn)
PWP001S	40x20	520
PWP002S	50x20	520
PWP003S	63x32	520
PWP004S	63x25	520
PWP005S	75x32	520
PWP006S	75x25	520
PWP007S	90x32	520
PWP008S	90x25	520
PWP009S	110x32	520
PWP010S	110x25	520
PWP011S	125x32	520
PWP012S	125x40	520
PWP013S	160x25	520
PWP014S	160x32	520
PWP015S	160x40	250
PWP016S	160x50	100
PWP017S	160x63	120
PWP018S	160x75	100

## FOUR WAY TEE / CROSS



Code	Size	Package (pcs/crtn)
PFT001S	20mm	400
PFT002S	25mm	360
PFT003S	32mm	180
PFT004S	40mm	90

## STOP VALVE



Code	Size	Package (pcs/crtn)
PSV001S	20mm	120
PSV002S	25mm	80
PSV003S	32mm	60
PSV004S	40mm	40
PSV005S	50mm	50
PSV006S	63mm	20

## CLAMP



Code	Size	Package (pcs/crtn)
PCL001S	20mm	2200
PCL002S	25mm	1800
PCL003S	32mm	1100
PCL004S	40mm	700
PCL005S	50mm	600
PCL006S	63mm	500

## TANK NIPPLE



Code	Size	Package (pcs/crtn)
PTN001S	32mm/1"	300
PTN002S	40mm/1-1/4"	300
PTN003S	50mm/1-1/2"	200
PTN004S	63mm/2"	100

## FOUR WAY TEE / CROSS



Code	Size	Package (pcs/crtn)
PFT001S	20mm	400
PFT002S	25mm	360
PFT003S	32mm	180
PFT004S	40mm	90

## CONCEALED STOP VALVE



Code	Size	Package (pcs/crtn)
PCS001S	20mm	70
PCS002S	25mm	70
PCS003S	32mm	60

A
B
C

## PIPE PLUG



Code	Size	Package (pcs/crtn)
PPP001S	1/2"	3000
PPP002S	3/4"	2000
PPP003S	1"	1000

## LONG PIPE PLUG



Code	Size	Package (pcs/crtn)
PLP001S	1/2"	400
PLP002S	3/4"	360

# Fabricated Fittings

## PLASTIC UNION



Code	Size
PRTPU001F	20mm
PRTPU002F	25mm
PRTPU003F	32mm

## MALE THREAD COUPLER



Code	Size
PRTCM002F	20x3/4"
PRTCM003F	25x1/2"
PRTCM005F	32x1/2"
PRTCM006F	32x3/4"

## FEMALE THREAD COUPLER



Code	Size
PRTCF002F	20x3/4"
PRTCF003F	25x1/2"
PRTCF005F	32x1/2"
PRTCF006F	32x3/4"

## FEMALE THREAD TEE



Code	Size
PRTTF003F	25x3/4"
PRTTF005F	32x3/4"
PRTTF006F	32x1"

## MALE THREAD TEE



Code	Size
PRTTM003F	25x3/4"
PRTTM005F	32x3/4"
PRTTM006F	32x1"

## MALE THREAD ELBOW



Code	Size
PRTEM003F	25x3/4"
PRTEM005F	32x3/4"
PRTEM006F	32x1"

## FEMALE THREAD ELBOW



Code	Size
PRTEF003F	25x3/4"
PRTEF005F	32x3/4"
PRTEF006F	32x1"

## MALE THREAD UNION



Code	Size
PRTUM001F	20x1/2"
PRTUM002F	25x3/4"
PRTUM003F	32x1"

## FEMALE THREAD UNION



Code	Size
PRTUF001F	20x1/2"
PRTUF002F	25x3/4"
PRTUF003F	32x1"

## METAL UNION



Code	Size
PRTUN001F	20x1/2"
PRTUN002F	25x3/4"
PRTUN003F	32x1"

# Butt-Welding (Procedure)

## Check the Wall Alignment and Gap

The alignment of the two parts should be checked at the same time. A possible misalignment on the outside must not exceed 10% of the thickness of the wall. If this limit is exceeded, a better clamping position is to be sought by rotating the pipe. In such a case, however, the surface must be re-planed. Important - The welding surfaces must be planed immediately prior to the jointing.

Once it has attained the fusion temperature, position the heating element in the butt-welding machine. Press the parts to be joined against the heating element with the force required for equalization until the entire circumference of each of the jointing faces rests completely against it and a bead has formed. Reduce the equalization pressure almost to zero. The heating time listed in the table below is measured from this moment.

Leave parts in the butt-welding jointing machine at welding pressure until the end of the cooling period. Once the heating period has elapsed, remove the parts from heating element, which should then be removed without touching the jointing surfaces and push the parts together immediately. The change over time must not exceed the value listed in the table. Pay particular attention during jointing that the parts be moved together swiftly until the surface are about to touch. Then they should be moved together so that they are in contact along the entire circumference. Next the pressure should be increased rapidly to the present jointing within the period of time specified in the table below. This pressure must be necessary, especially shortly after the jointing pressure has been attained. The jointing parts must stay in the welding machine under jointing pressure until the end of the cooling period specified in the table.

## Welding bead checks

A bead should form around the entire circumference of the pipe. Jointing of two-lip point should be above the pipe circumference means always being positive.

# APPLICATION CLASS TABLE as per DIN EN ISO 22391 -1, 2

The PE-RT pipes which are supplied by are Monolayer pipes with superior thermal resistance. The PE-RT pipes do not have an oxygen barrier and are mainly used for drinking water (hot & cold) installations.

PE-RT Pipe					Maximum Working Pressure Table (DIN EN ISO 22391-2)				
Outer Diameter (mm)	16	20	25	32	APPLICATION CLASS	Ø16 X 2.2	Ø20 X 2.8	Ø25 X 3.5	Ø32 X 4.4
Wall Thickness (mm)	2.2	2.8	3.5	4.4	1	10	8	8	8
Weight (kg/m)	0.098	0.153	0.238	0.388	2	8	8	6	6
Coefficient Linear Expansion (mm/m°K)	0.18	0.18	0.18	0.18	4	10	8	8	8
Application Class ( ISO 22391)	2-4-5	2-4-5	2-3-5	2-4-5	5	8	6	6	6

Pressures are in Bar Unit.

As per Table 1 of ISO 22391 ( Part 1 ) : 2009 specification PE-RT pipes are recommended for four different application classes as per following details:

- Application Class 1 : For Hot Water Supply at 60°C
- Application Class 4 : Under-floor Heating and Low temperature radiators
- Application Class 2 : For Hot Water Supply at 70°C
- Application Class 5 :High temperatures radiators

See application class table (DIN EN ISO 22391-1)

See maximum working pressure table (DIN EN ISO 22391-2) and maximum working temperature(°C)

## Physical & Mechanical Properties

Physical Properties : PE-RT Type II			
PROPERTY	TEST METHOD	UNIT	VALUES (Typical)
Melt Flow Rate	ISO 1133	g/10 min	0.3
Density	ISO 1133	g/cm <sup>3</sup>	0.950
Vicatsoftning Point	ISO 306	°C	125
Thermal Conductivity at 60°C	DIN 16833/DIN EN 12664	g/10 min	0.4
Co-efficient of thermal Expansion	DIN 53752 A (20°C-70°C)	cm/cm/°C	0.0001

Mechanical Properties : PE-RT Type II			
PROPERTY	TEST METHOD	UNIT	VALUES (Typical)
Hardness	ISO 868	Shore	>60
Tensile Strength Yield	ISO 527-2	MPa	>24
Tensile Strength Break	ISO 527-2	MPa	33
Elongation at Break	ISO 527-2	%	>600
Flexural Modulus	ISO 178	MPa	>1100
Izod Impact	ISO 180	KJ/m <sup>2</sup>	>22
Stress Crack Resistance	ASTM D 1693	F 50	No Failure



# Features of PE-RT Pipes & Fittings Supplied by Edoburg



## Easy to Install

PE-RT piping method offers fast installation and it has been developed as a Push fitting system, which does not require tools and technology. And it can be easily joined through a variety of joining methods.



## Non-Toxic Product

PE-RT is nontoxic material verified by NSF. Therefore, it can be used for potable waterworks.



## Fitness for Use in Seismic Areas

Flexibility of the PE-RT pipe is best suited to be used in seismic prone areas. The pipe is not prone to any damages.



## Ultimate Strength

PE-RT Plumbing System has no decline in quality and no change on creep PE-RT is a high-temperature flexible plastic pressure pipe with extensive testing for durability and material performance.



## Maintenance Free

PE-RT pipes are stress crack resistance. When the pipe is bending, the stress in the bent part loose quickly. Therefore no maintenance cost after installation.



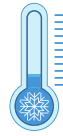
## Chemical Resistance

PE-RT system is strong against chemical reaction and corrosion resistant. It prevents bacteria & algae from breaching into the plumbing system. The PERT pipes are resistant to the most commonly used antifreeze fluids.



## Low Wastage

Due to flexibility of PE-RT pipes they can be supplied in 50-100 meter coils. This means exact length can be cut for installation and there is no wastage of pipe compared to standard length pipes.



## Low Temperature Use

PE-RT system has excellent low temperature resistance, so it can be constructed even when the temperature is low in winter (-30 °C), and the pipe does not need to be preheated during bending.



## Electrical Insulation

Unlike metal pipe material, PE-RT has excellent electrical insulation.



## 360° Rotation possible

PE-RT system can be easier to bend and it can be rotated 360° even after connecting pipes and fittings.



## Flexibility & Light Weight

Flexibility to bend the pipe around corners, thus reducing the consumption of pipe fittings and ultimate installation cost and light weight make transportation easy.



## Noise Free

PE-RT Plumbing System helps no more noise issue from water hammer, constant pressure and fluctuating temperatures.



## Wide temperature application

PE-RT pipe have wide operating temperature range from -30°C to 95°C.



## Freezing and Heat Resistance

On account of the high elasticity, the PE-RT plumbing system assures heat resistance and protects it from freezing.



## Cost Effective

Flexibility to speed installation decrease labour cost, long term reliability and less deficiency rate.

# PE-RT Pipes Installation Instructions

## Structure of PB1 Universal Fittings

**O-Ring**  
The O-ring is resistant to high or low temperatures. Made of EPDM Material for long lasting and hygiene property.

**Grab Ring**  
Grab ring is made of 316 stainless steel, which is an excellent corrosion resistant and has the strength to crawl at high temperatures.

**Retaining Cap**  
The retaining cap is factory fitted and does not require further tightening to get the proper torque. If the cap is loose, it can be easily tightened using hands without any tools.

**Spacer Washer**  
Space washer is designed to separate the O-ring seal from the grab ring and proper seating area for O-ring.

PB1 Universal Pushfit Fittings

## Installation of PE-RT Push-fit Fittings



Step: 1  
Cutting the Pipe

Use pipe cutter to cut the pipe on a cut mark (>|<).



Step: 2  
Inserting the Entry Sleeve / Stiffener

Before fixing the pipe into push-fit fitting support sleeve / stiffener must be inserted completely.

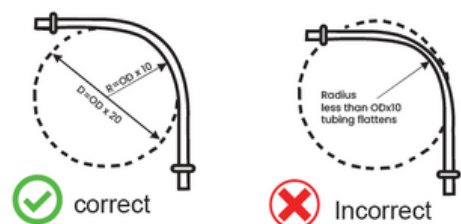


Step: 3  
Inserting the Pipe into Fitting

- Take a push-fit fitting and just spin the retaining cap 2-3 times and rotate only to loosen the cap.
- Take a Pipe with support sleeve and push it gently up-to the next mark and tighten the cap by hand (no tools) and you are done.

## Bending of the PE-RT pipe

PE-RT (Type II) pipe can be repeatedly bent and flexed with no affects to the integrity of the pipe however the minimum radius should be 10x the outside diameter of the pipe. Bending further will run the risk of kinking occurs the section should be cut out and replaced.



Bending of PE-RT Pipes  
(Bends near fittings are not advisable)

# Handling and Storage

## Proper Handling of Pipes



- **Impact Prevention:** Avoid dropping, dragging, or throwing pipes during handling. Sudden impact may cause stress fractures or joint damage.
- **Lifting Guidelines:** Use padded pipe tongs, wide slings, or fork protectors. Chains, hooks, or bare forks may gouge or scar the pipe surface.
- **Inspection on Delivery:** Check all pipes and fittings on arrival for cracks, warping, or joint-end damage due to transit or handling.

## Storage of Pipes

Pipes and Fittings must be stored in a dry, shaded, and well-ventilated location. If outdoor storage is unavoidable, the following best practices must be observed to maintain product performance and installation safety:



- **UV Protection:** Shield from direct sunlight using UV-resistant tarpaulin or sheeting. Ensure ventilation is maintained to prevent heat buildup.
- **Flat Surface Storage:** Pipes must rest on a flat, stable surface. Uneven storage areas may lead to sagging, ovality, or misalignment of sockets.
- **Stacking Alignment:** When stacking, alternate spigot and socket ends to distribute load evenly and avoid deformation of socket geometry.
- **Stacking Height Limit:** Do not exceed recommended stack heights. Excessive weight can distort pipe roundness and compromise sealing surfaces.
- **Rack Spacing:** When using pipe racks, provide support at intervals of not more than 900 mm (3 ft) to prevent bending or bowing.
- **Inspection on Delivery:** Inspect all pipes and fittings immediately upon receipt. Check for any damage, deformation, or cracks—especially at the joint ends.

*Note: Improper handling may affect joint integrity and project safety. Always follow local code.*



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