Rodney Industries
A Division of Vinidex

Poly Mains

HDPE Rubber Ring Joint (RRJ) Mainline Fittings to Suit uPVC Pressure Pipelines
‘Made From One of The World’s Most Valuable Materials’

Material of Choice: High Density Polyethylene (HDPE)
- Extreme life expectancy in most conditions
- Able to be repaired and welded during the life of the product
- Materials conform to AS/NZS 4131

The Method
- Manufacture oversized hollow section billets
- Ultra-sound check for voids and flaws
- Machine and mill into RRJ Socket Ends and Junction Centre Modules
- Combine with existing HDPE Butt weld Pipes and Fittings to create the PolyMains Range

Accurate and Consistent
- Machining HDPE is Fast, Clean and Accurate
- Manufacturing tolerances exceed industry requirements
- Design not dictated by patterns, dies or moulds

Warranted Pressure Ratings
- Total manufacturing control of component diameters and wall thickness
- Fully rated machine buttwelds throughout the PolyMains range - by design

Styles and Sizes
- 3 to 15 inch PolyMains Junctions are fabricated modular style to requirements
- Few limits to the possible Junctions, Repair Joints and Hydrants

Ease of Use
- Close but sensible tolerances on the lead-in to sockets combined with the low friction qualities of polyethylene
- Provide accurate alignment during “pipe setting” and easy, low force engagement of the seal

Seal of Confidence
- Machined recess matched to the profile of the Dual Hardness Rubber Lip Seal
- 5 years field use supports designs opinion that accidentally ‘Rolling’ seal extremely unlikely

Toughness
- No epoxy, paint or nylon coatings to chip, cut, or embrittle with age
- No stainless steel to scratch, abrade or dent
- No cast iron to fracture

Thrust Blocking
- Generously sized and designed for easy thrust blocking options, well clear of fitting points

‘Made Better By Design, Made Better for Performance’
Versatile, Reliable and Trusted Polymers’

Nominal Bore Sizing

- Achieved correct nominal bore specifications by up-sizing
  
  Example
  - 8 inch RRJ tee junction or 90° sweep bend would be constructed with 250mm PN16 Pipe
  - 6 inch riser uses 200mm PN16

The Challenge

- To match Flanges to their optimum bore sizes, across the range

Maxi-Stub is the Result

- Full nominal bore at high PN or Class Ratings on any flange size or table
- No spacers required for butterfly valve function
- Full size sealing face with full backing flange support
- No warping backing rings or deformed stubs

Poly Hydrant Bases / Riser Combinations

- All welded poly construction
- No threads, no assembly
- ‘Southern Cross compatible’ hydrant valves with a victaulic style ring on base
- Fully pressure rated to suit Class 12 PVC RRJ pipe and utilize low force ‘lip seal’ for ease of installation
- BSPM/Victaulic adaptors to suit all other hydrant styles

“Victaulic” Versus Pipe Threads

When coupled to the mating poly riser with a standard shouldered coupling, the resulting hydrant riser tee assembly has:

- No threaded joint (weak link) in ground
- No threads to corrode, seize, or leak
- Easy maintenance removal of hydrant valve
- Minimise your in-house labour content

Destructive Testing

- Riser to Hydrant Base Joint sustained repeated side flexing without damage
- Extreme side force at Hydrant Valve/Outlet such as impact by farm equipment or irrigator malfunction will cause the release of valve and clamp from victaulic shoulder with minimal damage - Now field proven
- Same valve and victaulic clamp were refitted and pressure tested to 186psi for 72 hours with no leaks or material creep
- No stress or damage was transferred to the poly riser base
- Field incidents have confirmed the toughness of the PolyMains Bases
Due to the modular nature of the PolyMains concept, quick, easy, lightweight solutions to seemingly impossible problems are achievable. Any combination of Tees, Crosses and Reducers are possible within the available size range.

12" Cut in / Repair tee - Utilising one piece flange socket connectors

Flow Dividers allow 360° rotation as well as bolt-on upgrades

Maxi Stub / Maxi Flange Combination
Eg. 200mm Stub / 160mm Backing Ring

Large bore socket to flange tees using Maxi Stub to allow valve opening without the need for spacers

Why steel 90° bends on PolyMains ground entries?

Steel bends above the ground are:
- Fire Proof
- Standard bore sizes suit valve function
- Rotatable 360°
- BSP sockets for air release valves easy option on steel
- Less expensive overall than buttwelded poly bends in these application
- Polyethylene coatings for corrosion resistance if required (Red Seal)

Flanged Tee to riser shows versatility not available from traditional products

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