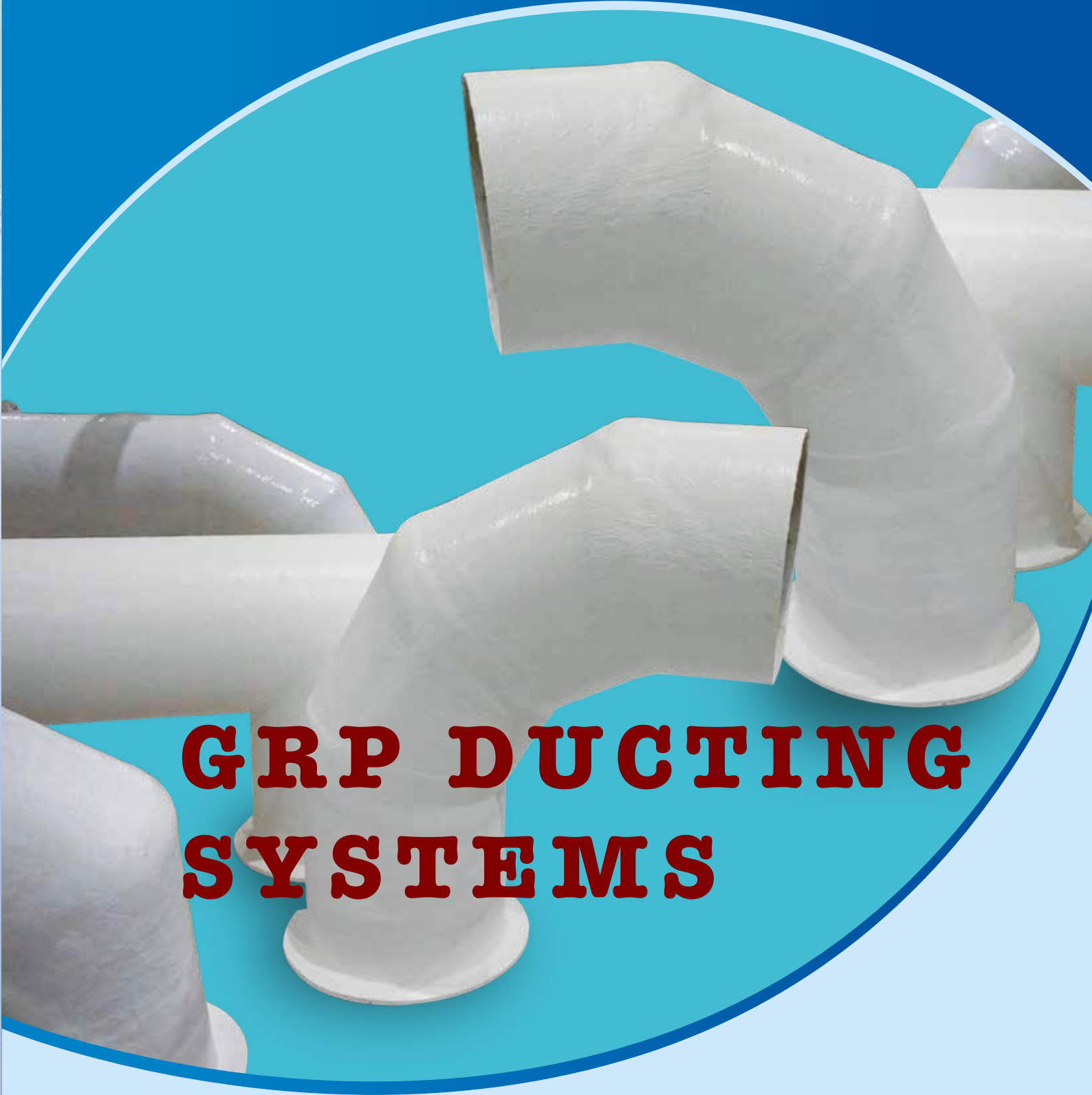




مصنع جود وين قطر للانابيب  
GOODWIN QATAR PIPES FACTORY



# GRP DUCTING SYSTEMS



ASTM E84 CLASS 1  
FIRE RETARDANCE



ISO 9001:2015



/goodwin Qatar



@QatarGoodwin



Goodwin Qatar



in/goodwin-qatar



goodwin.qatar



## DESCRIPTION

The GRP Ducting Systems are specially designed and manufactured for environmental protection. The Ducting Systems are manufactured with low maintenance, low cost and extreme durability in mind. GRP hand lay-up manufacturing methods for square and rectangular style, but for the circular type can make filament wound winding methods and Ducting Systems are offers an ideal solution to many industrial infrastructure problems. Ducting Systems are manufactured using a custom-made GRP mould for square & rectangular style and circular type is manufactured using mandrills and by the application of Resin system and chopped strand mat according to the manufacturing method.



## APPEARANCE

Appears smooth on the inside area, the side suitable for air flow and clean purpose, the external side of the GRP Ducting Systems is natural finish of glass reinforce plastic, upon the client and projects specifications can change the colors. The preferable colors for GRP Ducting Systems are grey or white color.

## PROPERTIES

**Lightweight** - less density - 20% of steel; 70% of aluminum □ **High Strength** - stronger than structural steel  
**Superior dimensional stability** □ **Wide temperature range uses** □ **Thermal expansion values better than 50% of steel, 35% of stainless steel & 25% of aluminum** □ **Thermal insulation** - high strength and insulating values  
**Corrosion resistance** - harsh elements and environments □ **Electromagnetic transparency** □ **Greater frequency freedom of movement for radio waves and microwaves** □ **Inherent colors** □ **Ease of fabrication and our Resin system include isophthalic & epoxy based vinyl ester apart from standard polyester.**

## ADVANTAGES & BENEFITS

**Much stronger bond to all kinds of surface:** Seams can be avoided and thereby ensuring safer protection, very little maintenance and ease of repair.

**Lightweight & Durable:** Allows easy handling, cutting, fixing, lifting and installation.

**Cost Effective:** Extremely long life compared to metal and other plastic materials, completely maintenance free.

**High Strength & Stiffness:** High glass content and reinforcement, our hand lay-up application and filament winding method give extremely high strength and stiffness.

**High Impact Resistant & Elastic:**

Returns to original position without any permanent deflection or distortion within recommended allowable loads.

**Superior UV Protection:** Our integral UV protection system gives long-term shield against the damaging effects of UV rays.

**Non-Conductive & Non-Interfering:** Comply international electrical safety specifications. Allows transmission of radio waves



**Corrosion Resistance:** No rusting, peeling or flaking even under the most aggressive conditions in any part of the world.

**Low Thermal Conductivity & Expansion Rate:** Will not transfer heat unlike metal.

**Fire Retardant:** Complies with ASTM-E84 and BS 476 standards. Our standard finish is fire retardant resins, the construction will provide half hour fire resistance, compliant with BS 476 part 22 (retention of stability, integrity and insulation). Fire retardant resin is used to form a self-extinguishing laminate to BS 476 part 7, class-2 (surface spread of flame). Increased levels of protection can be offered if required. The products are tested as per QCS 2014 specification ASTM E84.

**Easy to Joint:** These permanent joints, which is a laminate of glass fibre mat and tissue with resin, predominantly used directly at job site, these types of joints guarantees safe and long-lasting connections that accommodate all axial strengths.

**Special Futures:** GRP Ducting Systems can be done at temperature unlike rubber lining, which require vulcanizing, GRP being a non permeable material completely eliminates the chances of soaking the highly harmful air discharges, thereby ensure the protection from chemical corrosion also which ultimately contributes to the longer life span. Our methods of manufacturing offers excellent physical strength and in general much better impact, it has capacity to withstand temperature up to 80°C in most applications.

By virtue of its superior material characteristics, GRP Ducting Systems have become the ultimate choice for replacing steel ducts for different process airflow for underground and aboveground applications. Well-engineered GRP Ducting systems can be totally forgotten after installation for its life period without cathodic protection or periodic maintenance and for this reason, GRP Ducting systems are called as

**“ZERO-MAINTENANCE DUCTING”.** International Codes and specifications are available for GRP pipe design, construction, testing and installation.

All service requirements are met by the GRP pipes in total by suitable and appropriate design. On the cost front, with optimum engineering and productivity matching the best of industries worldwide, we are able to compete with steel, ductile iron and other conventional GRP Ducting Systems material.

### SIZE & AVAILABILITY

The size of our Ducting systems as per project specification and design, all the size and length are customized production for the projects requirements, but we conform the wall thickness 4mm minimum or as per the specifications. custom made design, Ducting systems can be manufactured and the designing the Ducting systems sizes according the airflow.

### FEATURES

Corrosion Resistance  No Rusting  No Peeling  
No Flaking  Suitable to use H2S Gas Area  
Impervious to Bacteriological growth  Lightweight  
Durable  Use in all climates & exposure to sunlight  
 High Strength  High Stiffness  Long life  
Non-conductive  Non-Interfering  Non-magnetic  
long life  Thermally inert  Easy installation  
Low Maintenance  Pleasing appearance  
Fire Retardant  Non - Toxic  Cost Effective  
Superior UV Protection  Withstand temperatures up to 80°C  
 High Impact Resistant & Elastic  
Resulting in longer service life  Less maintenance  
Less repairs down time  Easier & cheaper handling

### CONFORMITY TO SPECIFICATIONS AS PER QCS 2014

Mechanical proprieties as specified are controlled at beginning of GRP Ducting Systems manufacturing (tests in plan, or independent laboratory or witnessed by agreed agency). Routine tests defined in agreement with consultant engineers are performed to guarantee the consistency of production. The GRP Ducting Systems manufacturing method as per QCS Specification 2014.







شركة جودوين قطر ذ.م.م  
**GOODWIN QATAR WLL**

GATE NO. : 151, STREET NO: 24, ZONE NO : 81, NEW INDUSTRIAL AREA

PO BOX : 13066, DOHA - STATE OF QATAR

TEL. : +974 4468 22 25, FAX. : +974 4451 08 31

E-mail : [info@goodwinqatar.com](mailto:info@goodwinqatar.com)

Web. : [www.goodwinqatar.com](http://www.goodwinqatar.com)

