



ADDRESS: 95-96 RAILWAY ROAD, TEDDINGTON, MIDDLESEX, TW11 8TE, UK.

Web: [www.glenthorpeengineering.co.uk](http://www.glenthorpeengineering.co.uk) e-mail: [info@glenthorpeeng.co.uk](mailto:info@glenthorpeeng.co.uk)

TEL: +44(0)208 977 5433 FAX: +44(0)208 943 4993

**Designed & manufactured in England**

## Glenthorpe Engineering Co. Ltd



## Rotary swivel couplings



Note: Glenthorpe reserve the right to change specifications without notice. All content including specifications, dimensions and ratings are for general guidance only and should not be taken as absolutes please call us if additional clarification is required. The content of this document is the sole ownership of Glenthorpe Engineering Co Ltd all rights & copyright reserved. The content of this brochure is the sole ownership of Glenthorpe engineering co ltd, all right reserved

## HISTORY/ABOUT US

Glenthorpe Engineering Co Ltd was founded in 1962 and remains a family run business. Our UK factory has been designing and manufacturing hydraulic swivel couplings in-house for over 50 years.

From 2011 substantial investment in the company has been made, replacing and modernising our manufacturing machinery & modernising assembly & administration process to create a high quality and scalable manufacturing environment, leading to greater efficiencies and availability of product.

Our swivel couplings are used in a wide range of applications including industrial hose reels, jetting lances, plant equipment, mechanical diggers, horticulture & agricultural machinery, drainage cleaning machinery & flight simulators to name a few.

We offer a standard production range of hydraulic swivel couplings with BSP fittings along with semi production and manufactured to order products with alternative fittings, such as J.I.C, NPT, BSPT, ISO Metric S/L, SAE and choices



## GENERAL COUPLING INFORMATION

- **Testing:** Our couplings are fully pressure tested to above max recommended operating pressure prior to dispatch.
- **Rotation:** Low speed high pressure couplings offer full 360 full rotation.
- **Banjo-90 style, sizes & pressures:** From 1/4" BSP to 2" BSP balanced pressure swivel coupling with pressure ratings, depending on size from 4,000 p.s.i (276 BAR) to 5,000 p.s.i (345 BAR).
- **Inline & Inline-90 style, sizes & pressures:** From 1/4" BSP to 2" BSP swivel coupling with pressure ratings, depending on size 2,500 p.s.i (173 BAR) to 3,500 p.s.i (241 BAR).
- **Inline Super High Pressure (SHP):** Inline SHP & Inline-90 SHP, available in 1/2" BSP & 3/4" BSP 10,000 p.s.i (690 BAR).
- **Fitting options:** BSP is our standard stock fitting, however couplings with alternative fittings can be manufactured to order .
- **Seals:** Nitrile rubber (NBR) seals fitted as standard (temperature range -30 to + 95 Deg C ), alternative seal options such as PTFE, polyurethane & EP are available upon application.
- **Material & manufacture:** Couplings are manufactured in-house from mild steel with zinc & passivate finish. Alternative plating finishes are available to suit various applications.
- **Stock & availability:** We carry large stock of most production units and have the in-hose facilities to manufacture, assemble & test non-



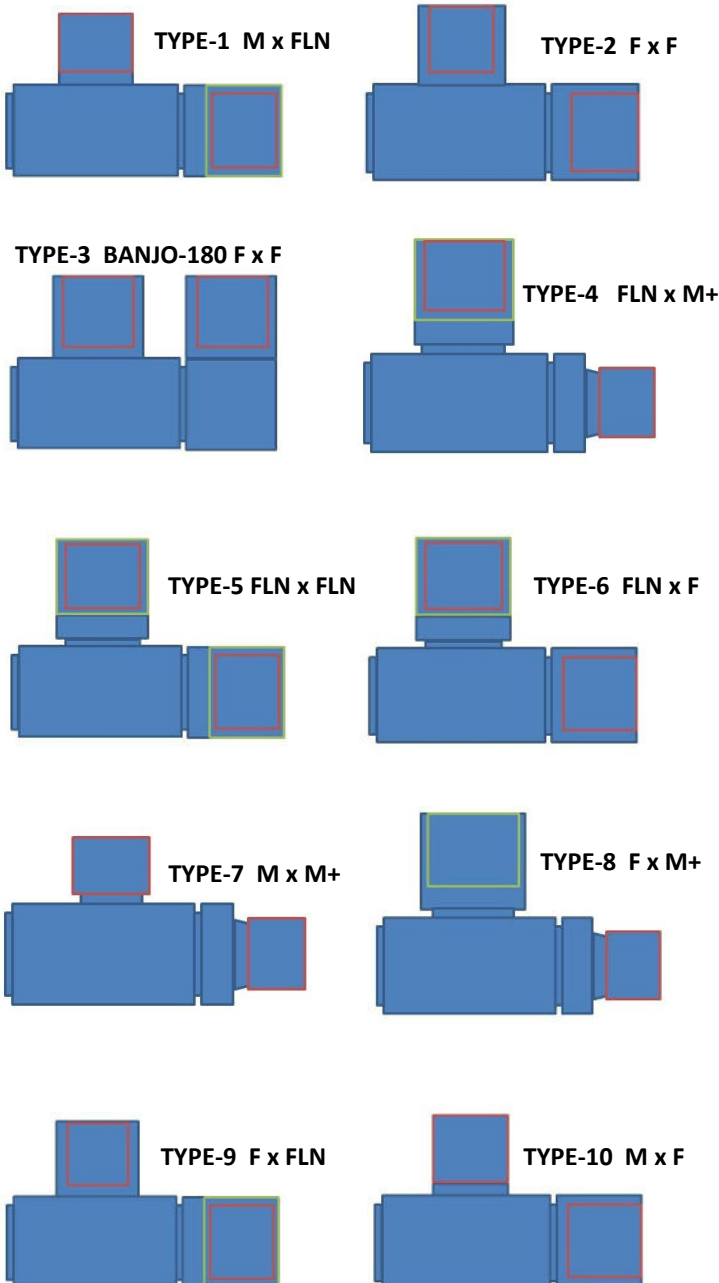
**BANJO-90 RANGE 1/4" to 2" BSP**

M = Male with 60 degree cone seat

M+ = Male with 60 degree cone seat and rear flange so bonded seal can also be used

F = Female (Used with bonded seal)

FLN = Female with loose nut & nipple



- Recommended use with oil, water or air
- NBR seals as standard: -30 to +95 Deg C
- Seal options: Polyurethane, PTFE, EP
- 1/4" to 1" BSP 5,000 p.s.i (241 BAR)
- 1.1/4" BSP to 5,000 p.s.i (207 BAR)
- 1.1/2" to 4,000 p.s.i 2" to 2,000 p.s.i

TYPE	BODY	SHAFT
TYPE-1	MALE	FEMALE LOOSE NUT
TYPE-2	FEMALE	FEMALE
TYPE-3	FEMALE	FEMALE
TYPE-4	FEMALE LOOSE NUT	MALE +
TYPE-5	FEMALE LOOSE NUT	FEMALE LOOSE NUT
TYPE-6	FEMALE LOOSE NUT	FEMALE
TYPE-7	MALE	MALE +
TYPE-8	FEMALE	MALE +
TYPE-9	FEMALE	FEMALE LOOSE NUT
TYPE-10	MALE	FEMALE



INLINE RANGE TYPE-8 stock 1/4" to 2" BSP

M = Male with 60 degree cone seat

M+ = Male with 60 degree cone seat and rear flange so bonded seal can also be used

F = Female (Used with bonded seal)

FLN = Female with loose nut & nipple

- Recommended use with oil, water or air
- NBR seals as standard: -30 to +95 Deg C
- Seal options: Polyurethane, PTFE, EP
- 1/4" to 1" BSP 3,500 p.s.i (241 BAR)
- 1.1/4" BSP to 3,000 p.s.i (207 BAR)
- 1.1/2" to 2,500 p.s.i 2" to 2,000 p.s.i



**TYPE-1 M+ x FLN**



**TYPE-2 F x F**



**TYPE-4 F LN x M+**



**TYPE-5 FLN x FLN**



**TYPE-6 FLN x F**



**TYPE-7 M+ x M+**



**TYPE-8 F x M+**



**TYPE-9 F x FLN**



**TYPE-10 M+ x F**

TYPE	BODY	SHAFT
TYPE-1	MALE	FEMALE LOOSE NUT
TYPE-2	FEMALE	FEMALE
TYPE-3	FEMALE	FEMALE
TYPE-4	FEMALE LOOSE NUT	MALE +
TYPE-5	FEMALE LOOSE NUT	FEMALE LOOSE NUT
TYPE-6	FEMALE LOOSE NUT	FEMALE
TYPE-7	MALE	MALE +
TYPE-8	FEMALE	MALE +
TYPE-9	FEMALE	FEMALE LOOSE NUT
TYPE-10	MALE	FEMALE





INLINE-90 RANGE Manufactured to order 1/4" to 1.1/4" BSP

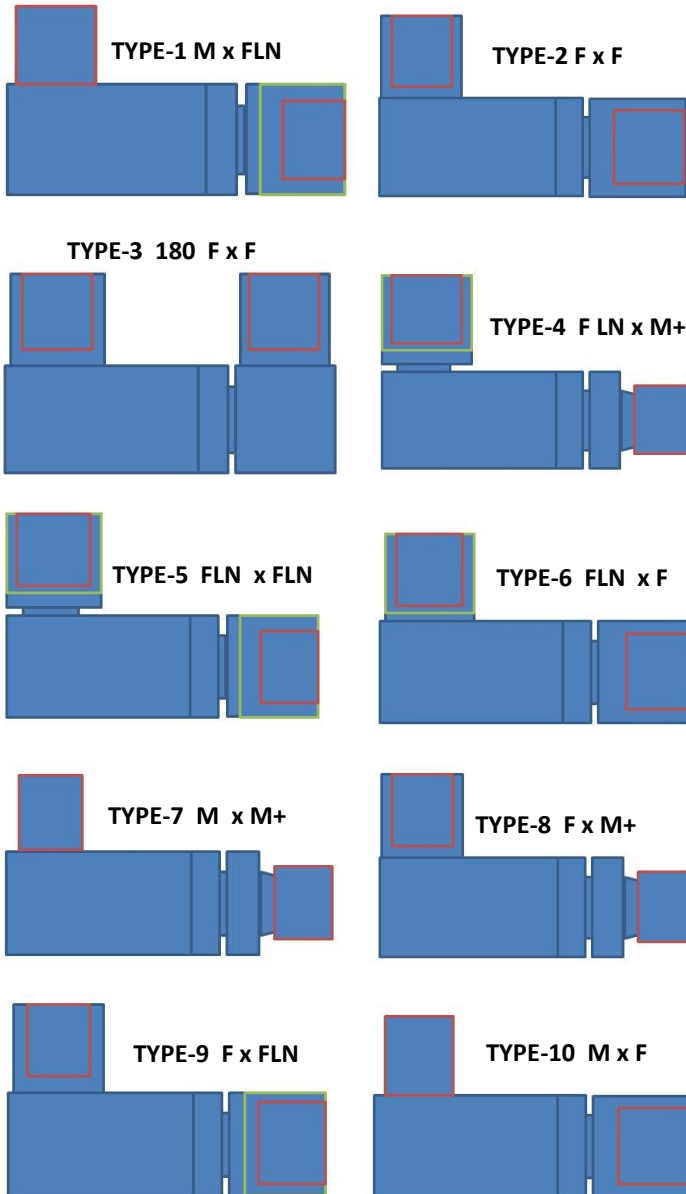
M = Male with 60 degree cone seat

M+ = Male with 60 degree cone seat and rear flange so bonded seal can also be used

F = Female (Used with bonded seal)

FLN = Female with loose nut & nipple

- Recommended use with oil, water or air
- NBR seals as standard: -30 to +95 Deg C
- Seal options: Polyurethane, PTFE, EP
- 1/4" to 1" BSP 3,500 p.s.i (241 BAR)
- 1.1/4" BSP to 3,000 p.s.i (207 BAR)
- 1.1/2" to 2,500 p.s.i 2" to 2,000 p.s.i



TYPE	BODY	SHAFT
TYPE-1	MALE	FEMALE LOOSE NUT
TYPE-2	FEMALE	FEMALE
TYPE-3	FEMALE	FEMALE
TYPE-4	FEMALE LOOSE NUT	MALE +
TYPE-5	FEMALE LOOSE NUT	FEMALE LOOSE NUT
TYPE-6	FEMALE LOOSE NUT	FEMALE
TYPE-7	MALE	MALE +
TYPE-8	FEMALE	MALE +
TYPE-9	FEMALE	FEMALE LOOSE NUT
TYPE-10	MALE	FEMALE



Manufactured & designed in the UK

## BANJO-90 RATINGS & DIMENSIONS

SIZE IN BSP	MAX WORKING PSI ( BAR)	TEST PSI (BAR)	LENTH	AXIS OF ROTATION TO FACE OF FITTING	MAX BORE SIZE
1/4"* , 3/8" , 1/2"	5,000 (351)	7,000 (527)	3.1" (79mm)	1.8" (45.75mm)	0.4" (10mm) *6mm
3/4" , 5/8**"	5,000 (351)	7,000 (527)	3.4" (86.5mm)	2.1" (53.5mm)	0.625" (16mm) **1/2"
1" Type 1	5,000 (351)	6,000 (421)	TYPE 1 = 4.08"(104mm)	TYPE 1 = 2.15" (55mm)	TYPE-1 = 0.825" (21mm)
1" Type 2	5,000 (351)	7,000 (421)	TYPE 2 = 4.85" (124mm)	TYPE 2 = 2.35" (61mm)	TYPE-2 = 1" (25.4mm)
1 1/4"	5,000 (351)	7,000 (527)	5" (127mm)	3.1" (78.5mm)	1.125" (28.5mm)
1 1/2"	5,000 (351)	7,00 (527)	6.1" (155mm)	3" (76mm)	1.250" (31.5mm)
2"	4,000 (351)	6,500 (421)	7.15" (181.5mm)	3.9" (99mm)	1.750"( 44.5mm)

## INLINE RATINGS & DIMENSIONS (Call for Inline-90)

SIZE IN BSP	MAX WORKING PSI ( BAR)	TEST PSI (BAR)	LENTH	AXIS OF ROTATION TO FACE OF FITTING	MAX BORE SIZE
1/4"* , 3/8" , 1/2"	3,500 (246)	5,000 (352)	3.75" (95)	1.8" (45.75mm)	0.4" (10mm) *6mm)
3/4" (5/8")	3,500 (246)	5,000 (352)	4.05" (103)	2.1" (53.5mm)	0.625" (16mm)
1"	3,500 (246)	5,000 (352)	4.85" (123)	2.4" (61mm)	0.825" (21mm)
1 1/4"	3,000 (211)	4,500 (317)	5" (127)	3.1" (78.5mm)	1.125" (28.5)
1 1/2"	2,500 (176)	3,500 (246)	5.75" (147)	3" (76mm)	1.250" (31.5)
2"	2,000 (141)	3,000 (211)	6.35" (161)	3.9" (99mm)	1.750"( 44.5)

## Gallery (examples)



BANJO-90 RANGE 1/4" to 2" BSP



BANJO-180 (Type-3)



INLINE RANGE 1/4" to 2" BSP



1/2" BSP TYPE-1 BANJO-90



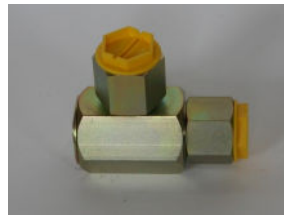
1/2" BSP TYPE-2 BANJO-90



1/2" BSP INLINE M x F Type-8



3/4" BSP TYPE-1 BANJO-90



3/4" BSP TYPE-2 BANJO-90



3/4" BSP INLINE M x F Type-8



1" BSP TYPE-1 BANJO-90



1" BSP TYPE-2 BANJO-90



1" BSP INLINE M x F Type-8



1/2" NB DUAL FEED



INLINE SHP



1/2" & 3/4" NB INLINE-90





**ADDRESS:** 95-96 RAILWAY ROAD, TEDDINGTON, MIDDLESEX, TW11 8TE, UK.

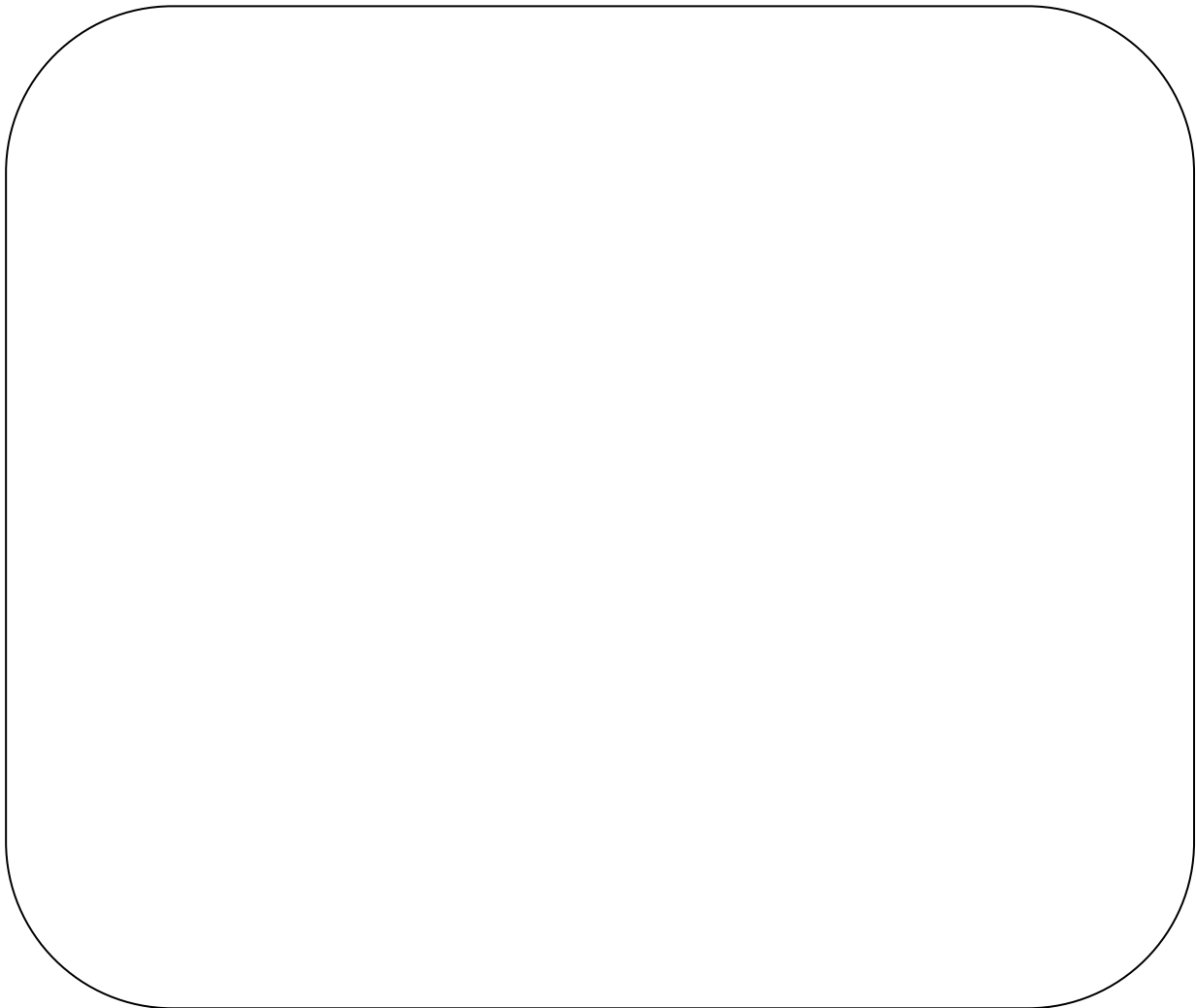
**Web:** [www.glenthorpeengineering.co.uk](http://www.glenthorpeengineering.co.uk) **e-mail:** [info@glenthorpeeng.co.uk](mailto:info@glenthorpeeng.co.uk)

**TEL:** +44(0)208 977 5433 **FAX:** +44(0)208 943 4993

**Designed & manufactured in the England**

## Glenthorpe Engineering Co. Ltd

### High pressure rotary swivel couplings



Note: Glenthorpe reserve the right to change specifications without notice. All content including specifications, dimensions and ratings are for general guidance only and should not be taken as absolutes please call us if additional clarification is required. The content of this document is the sole ownership of Glenthorpe Engineering Co Ltd all rights & copyright reserved. The content of this brochure is the sole ownership of Glenthorpe engineering co ltd, all right reserved