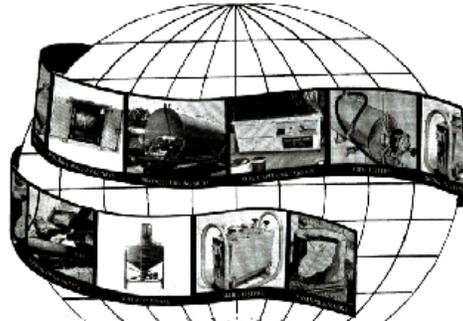


GNY Aviation Swivel Joints



*Distributor inquiries
invited*



GNY EQUIPMENT, LLC

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GNY Equipment, LLC

The Company was an early pioneer in the development of hydrant type aircraft refueling equipment and related aircraft ground support equipment. Experience in this field led to the designing and manufacturing of pits required for the early hydrant systems. The company had traded under the name Garsite TSR. The Deer Park facility remained in New York as Garsite International until in December 1995, when GNY Equipment, LLC (GNY) was spun-off to an independent status, bringing with it, almost a half-century of experience in aviation fueling, in liquid, Air, Oil and Gas equipment.

The people at GNY have been manufacturing Aviation fueling equipment for over three decades including Aviation Swivel Joints for GNY's Floating Suctions, Liquid fifth wheels, Hydrant carts, and Refuelers. These Swivel joints are available in two piece and split flange designs in three different materials, with two types of seal design. Three different sealing materials with various pressure and temperature range are available for the Aviation Industry.

GNY Aviation Swivel Joints:

- **Two Piece Design:** The main-seal replacement requires dismantling ball bearings).
- **Split Flange Design:** The main-seal can be replaced without idsmantling any ball bearings).

Size Range: 50 mm to 900 mm (2" to 36" and larger).

Pressure Range: ANSI Class 150 through 400.

Temperature Range: Ambient, subzero and high temp. to suit application.

Material of Construction:

- **Carbon Steel:** ASTM A105 (up to 6") or A515/A516 Gr. 60/70 (8" and above)
- **Stainless Steel:** SS304/SS316 (ASTM A182 F304/316 or A240-304/316 or equal)
- **Aluminum:** B26-356-T6 (upto 10")

Ball Bearing, fitted with two rows of widespread ball bearing (Chrome CS or SS).

Heavy-duty load bearing capacity widespread ball-bearing raceway hardened up to 345 BHN (equals to 37 Rockwell "C") through a special permanent metal hard facing process for CS and SS.

Seal Contact Faces are overlaid with Corrosion Resistant Stainless Steel (SS) Lining:

All CS Swivel Joints are supplied with Special Stainless Steel lining at the main seal faces, on both nipple and housing for longer seal life and smooth rotation.

Seal Designs: Main seal of two different types: O-Ring or Lip Seal.

O-Ring type: Main Seal of O-ring cross section of Buna-n/Viton® material and O-rings,

Lip Seal type: Main Lip Seal of PTFE (Teflon®) with Spring Energized or Buna-n/Viton® Insert.

Factory Lubricated and Sealed: Lubricated with special wear resistant high temp. PTFE based lubrication.

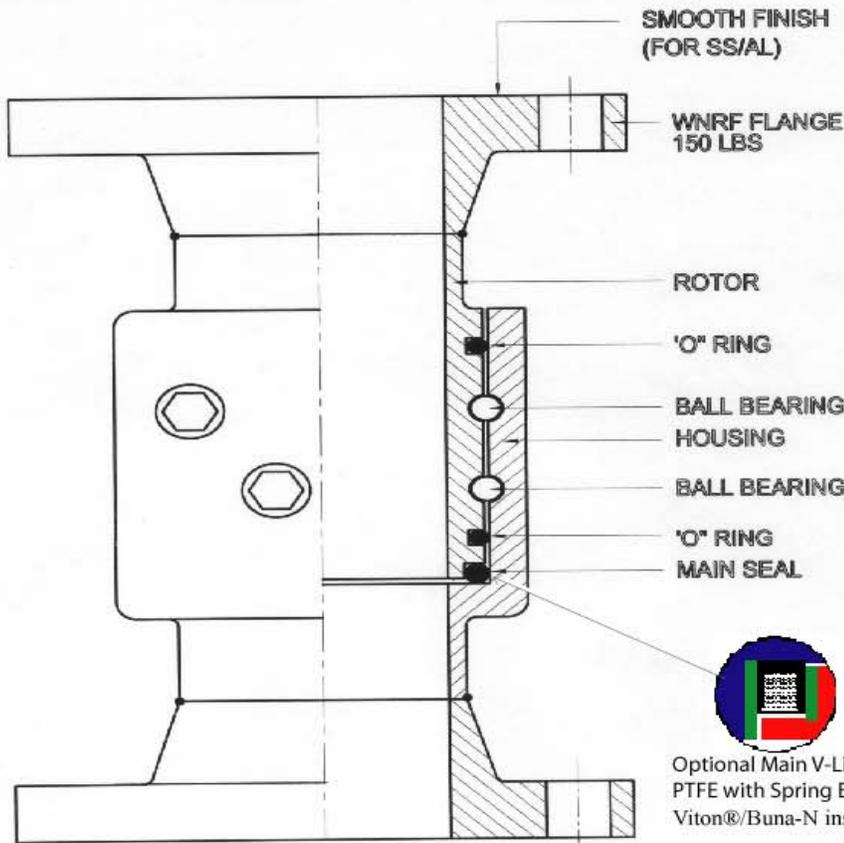
Testing: All Swivel Joints are pressure tested. Special testing such as Vacuum test, Bending moment test, Torque test, External pressure test and Life Cycle test is also available.



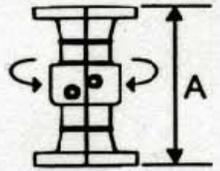
Style 30F



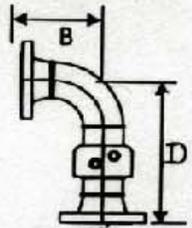
GNY Aviation Swivel Joints



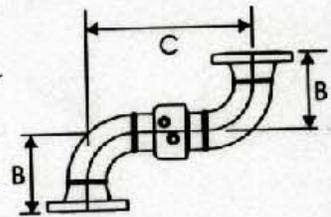
STYLE : 20



STYLE : 30



STYLE : 40



Shown here, Two-piece design, 150lbs. weld-neck flange-ends
 All other listed end-connections and in Split flange design with
 option of seal type ("O"-Ring/ V-Lip Seal) and sealing materials also available.

Heavy-duty load bearing capacity widespread ball-bearing raceway hardened up to 345 BHN

Styles: 10 to 80 for three plane rotations (shown above are style 20, 30 and 40).

End Connections: Flange-ends, Threaded-ends, Plain-ends, Weld-ends and Combinations.



6" Style 30F



3" Style 20F



24" Style 30F
 Split Flange Design for
 Hot Air Special Application

GNY Aviation Swivel Joints

Major Applications:

1. GNY Master Meter Cart, Model FB705
2. GNY Hydrant Carts, (200- 1200 GPM capacity)
3. GNY Towable Pumping Cart, Model FB918
4. GNY Refuelers/ Defuelers, (600- 1200 GPM capacity)
5. GNY Floating Suction for Aviation Storage Tank, Model No. 301-B
6. GNY Liquid Fifth Wheel, Model No. 9688, and.....many more applications



Master Meter Cart, Model FB705



Towable Pumping Cart, Model FB918



Liquid Fifth Wheel, Model No. 9688

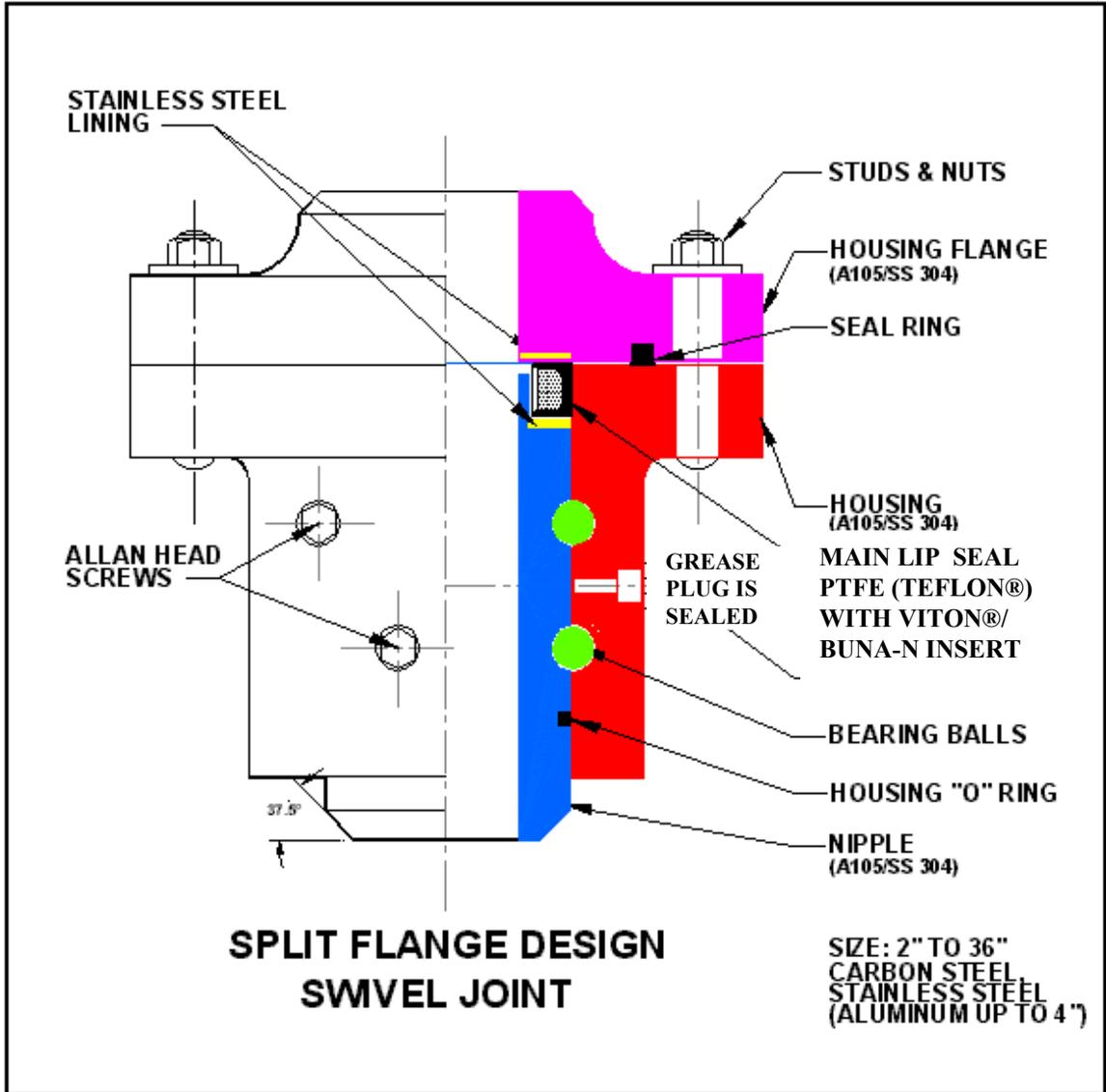


Floating Suction, Model No. 301-B

A Complete line of GNY Aviation equipment available:

- | | | |
|--------------------------------|--------------------------|-------------------------|
| · Surgite Surge Suppressors | · Ground Service Pits | · Pantograph Assemblies |
| · Potable Water Cabinets | · Fuel/ Defuel Valves | · Gauge Testers |
| · Additive Proportioning Units | · Venturies | · Cabinet Dispensers |
| · Nozzle Holder Interlocks | · Pressure Relief Valves | · Floating Suctions |
| · Hose Testers | · Refueling Modules | · Filtering Sets |
| · Midi & Mini Fuelers | · Master Meter & Carts | · Prover Tanks |
| · Custom Fueling Skids | · Liquid Fifth Wheel | · Towed Pumping Carts |

GNY AVIATION SPLIT FLANGE DESIGN SWIVELS



Heavy-duty load bearing capacity widespread ball-bearing raceway hardened up to 345 BHN

GNY AVAITION SWIVEL JOINTS

Size: 2" (50 mm) to 36" (900 mm).

Swivel Joints are available in style 20, 30 and 40 with threaded, flanged, butt weld ends connection or combinations, in ANSI 150 to 300 class. **Designed** as per API Spec. Standard 6H.

Material of Construction:

Carbon Steel: CS A105/ A515 or A515/A516 Gr. 60/70,

Stainless Steel: SS 304/SS 316 (CF8/ CF8M or equivalent)

Aluminum (up to 10" size)

Two different design constructions :

Two Piece Design

Split Flange Design: The main seal can be replaced without dismantling any bearings.

Ball Bearing, fitted with two rows of **widespread** ball bearing (Chrome CS or SS)

Combination of roller bearing with ball bearing units are also available.

Heavy-duty load bearing capacity widespread ball-bearing raceway hardened up to 345 BHN (equals to 37 Rockwell "C") through a special permanent metal hard facing process.

Seal Contact Faces are overlaid with Corrosion Resistant Stainless Steel (SS) Lining:

All CS Swivel Joints are supplied with **Special Stainless Steel lining** at the main seal faces, on both nipple and housing for longer seal life and smooth rotation.

Seal Design

Main seal of two different types: **O-Ring or Lip Seal.**

O-Ring type: Main Seal of O-ring cross section of Buna-n/Viton ® material and O-rings,

Lip Seal type: Main Lip Seal of PTFE (Teflon ®) with Buna-n/Viton ® Insert and O-rings or

Lip Seal type: Main Lip Seal of Buna-n/Viton ® is also available.

A special Inverted Lip seal design for main-seal is also available.

Positive and Negative pressures

Nipple (female) portion is **specially dimensioned** for the main seal to remain in the proper functioning position under both positive and negative pressure.

Designed to withstand temperature variations from -40 to 100 Deg. Centigrade

A special low or high temperature application is also available.

Factory Lubricated and Sealed:

Lubricated with Special wear resistant high temp. PTFE based lubricant and

Lubricated-for-life (maintenance free) is also available.

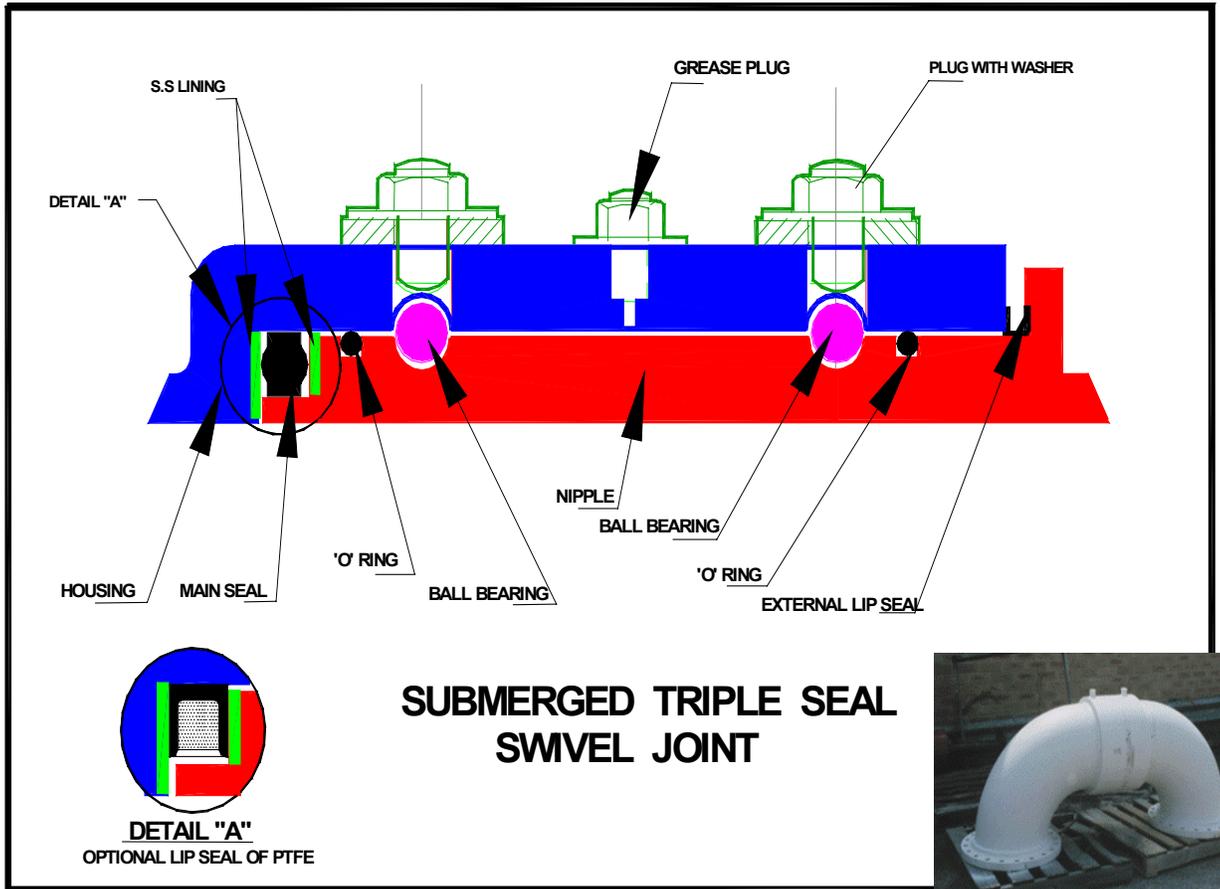
Dust Proof

Hydro testing and Special Testing

All Swivel Joints are Internally Hydro-tested at shop before shipping. The Air test, Vacuum test, Bending moment/Radial load test, Pull load test, Torque test, External Pressure test, Electrical conductivity test and Life Cycle Tests (US Patented) have been conducted during the R&D (research and development) and these tests can be conducted upon request at extra cost.



GNY SUBMERGED TRIPLE SEAL SWIVEL JOINTS



Heavy-duty load bearing capacity widespread ball-bearing raceway hardened up to 345 BHN

GNY SUBMERGED TRIPLE SEAL SWIVEL JOINTS

Size: 2" (50 mm) to 36" (900 mm).

Swivel Joints are available in style 20, 30 and 40 with threaded, flanged, butt weld ends connection or combinations, in ANSI 150 to 300 class. **Designed** as per API Spec. Standard 6H.

Material of Construction:

Carbon Steel: CS A105/ A515 or A515/A516 Gr. 60/70,

Stainless Steel: SS 304/SS 316 (CF8/ CF8M or equivalent)

Aluminum (up to 10" size)

Two different design constructions :

Two Piece Design

Split Flange Design: The main seal can be replaced without dismantling any bearings.

Ball Bearing, fitted with two rows of **widespread** ball bearing (Chrome CS or SS)

Combination of roller bearing with ball bearing units are also available.

Heavy-duty load bearing capacity widespread ball-bearing raceway hardened up to 345 BHN (equals to 37 Rockwell "C") through a special permanent metal hard facing process.

Seal Contact Faces are overlaid with Corrosion Resistant Stainless Steel (SS) Lining:

All CS Swivel Joints are supplied with **Special Stainless Steel lining** at the main seal faces, on both nipple and housing for longer seal life and smooth rotation.

Triple Seal Design

Main seal of two different types: **O-Ring or Lip Seal.**

O-Ring type: Main Seal of O-ring cross section of Buna-n/Viton ® material and O-rings,

Lip Seal type: Main Lip Seal of PTFE (Teflon ®) with Buna-n/Viton ® Insert and O-rings or

Lip Seal type: Main Lip Seal of Buna-n/Viton ® is also available.

A special Inverted Lip seal design for main-seal is also available.

External Lip Seal (for submerged application)

A third additional lip seal specially designed to provide required sealing for external fluid pressure.

External Lip Seal of PTFE (Teflon ®) or Buna-n/Viton ®.

A special Inverted external lip seal design is also available.

Positive and Negative pressures

Nipple (female) portion is **specially dimensioned** for the main seal to remain in the proper functioning position under both positive and negative pressure.

Designed to withstand temperature variations from -40 to 100 Deg. Centigrade

A special low or high temperature application is also available.

Factory Lubricated and Sealed:

Lubricated with Special wear resistant high temp. PTFE based lubricant and

Lubricated-for-life (maintenance free) is also available.

Dust Proof

Hydro testing and Special Testing

All Swivel Joints are Internally Hydro-tested at shop before shipping. The Air test, Vacuum test, Bending moment/Radial load test, Pull load test, Torque test, External Pressure test, Electrical conductivity test and Life Cycle Tests (US Patented) have been conducted during the R&D (research and development) and these tests can be conducted upon request at extra cost.

GNY SWIVEL JOINTS FOR REFUELERS MANUFACTURED AND TESTED (YEAR 2002)



Size: 4" style 30 x 12 nos.

**GNY TRIPLE SEAL SUBMERGED
SST SWIVEL JOINTS FOR
AVIATION STORAGE TANK
GNY JOB NO.: FB1151 / CLIENT: TAIWAN**



**Size: 4" & 6" Style 40 x Stainless steel
with PTFE seals**

Supplied in Year 2003