



SWIVEL JOINTS



BUREAU
VERITAS

**"ISO 9001"
CERTIFIED**



EXTRA HIGH-PRESSURE LONG RADIUS SWIVEL JOINTS

TRI RACE SWIVEL JOINTS

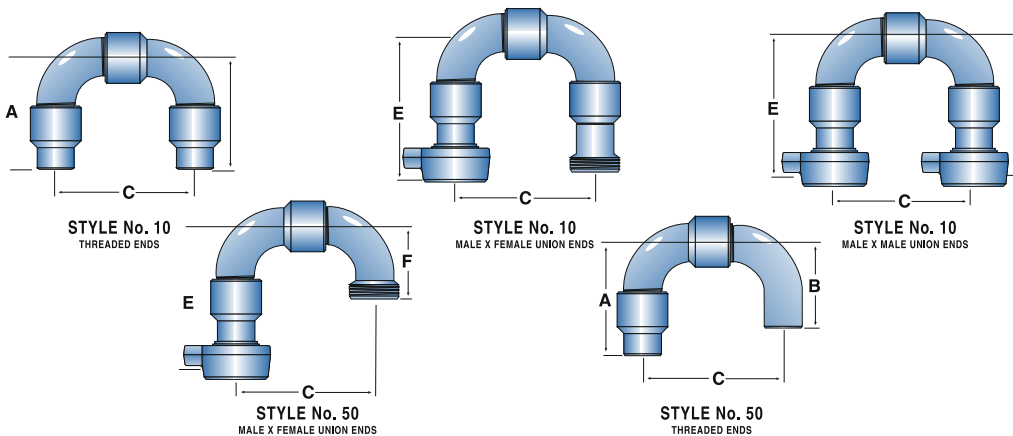
BEST tri race code red swivel joints are designed for the critical service conditions that exist in fracturing cementing, acidizing, and well testing.

They are available in 2" size with 15,000 PSI working pressure and 22,500 PSI test pressures. They come with 1502 union ends for fast easy make-up.

BEST tri race code black swivels are available in 10,000 PSI working pressure with female line pipe thread end connections.

FEATURES

- Long radius design provides lower vibration and reduced abrasion in corrosive, high rate pumping applications.
- Precision machined from forged alloy materials that are heat treated for longer service life.
- Three ball bearing raceways that more evenly share moment loads.
- Elastomeric instream packings that are compatible with today's fluids and designed to stay in place even in high velocity applications.
- Available for H₂S Service @ 10,000 PSI W.P.



	A	B	C	E	F
	8 ¹⁵ / ₁₆	6 ³ / ₈	10 ¹¹ / ₁₆	10 ¹⁵ / ₁₆	5 ¹ / ₂
	WEIGHT (APPROX.)				
STYLE 10	Threaded Ends	45.5 lbs			
	M x F Union Ends	56.0 lbs			
	M x M Union Ends	67.0 lbs			
STYLE 50	Threaded Ends	36.5 lbs			
	M x F Union Ends	50.0 lbs			



MODEL G SWIVEL JOINTS

The **BEST MODEL "G"** is the industry leader in technical advancements over the old conventional ball bearing design swivels.

DESIGN IMPROVEMENTS

Journal bearing design extends service life and improves operational safety because it eliminates brinelling and crack propagation common to all ball race design swivel joints. The journal bearing design increases fatigue life by 8 times and increases low temperature resistance by 10 times through the elimination of case hardened bearing areas.

Radial seal design results in no seal loss when wear occurs in the axial plane.

Major pressure loads are supported by replaceable elements.

Moment loads are supported across three widely spaced journal bearings for improved capacity and extended service life.

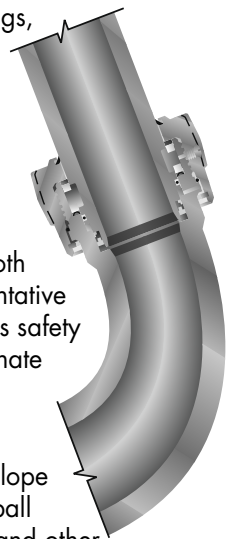
Thrust loads are carried on full contact bearings, not on body members. There are no case hardened surfaces subjected to "point" loads or shear loaded ball bearings.

Rotation of swivel body parts is no longer required for disassembly and reassembly thereby reducing repair time by 90%.

Can be repaired in line and further reduce both cost and down time. Also will facilitate preventative maintenance and field service which improves safety of field operations. Sour service models eliminate unwieldy snap-in races.

FIELD INTERCHANGEABILITY

The **BEST MODEL "G"** end to end and envelope dimensions are identical to the conventional ball bearing swivel joints manufactured by **BEST** and other major manufacturers. Therefore a move up in swivel technology is easy in both new and existing equipment.





BEST SWIVEL JOINTS, L.P.

BEST SWIVEL JOINTS has served the petroleum industry for over thirty-five years with the highest quality flow control products available.

BEST products are in service around the world and we continue to produce and develop products to satisfy the petroleum industries demand for improved safety, and dependability.

FULL TRACEABILITY

BEST products are fully traceable and are available with complete third party certification upon request.

STANDARD AND SOUR SERVICE

BEST products are available for both standard and sour gas service. Sour service products meet or exceed current **NACE** and **API** standards.

DUAL RACE AND TRI RACE

BEST manufactures swivel joints using both dual race and tri race technology. The dual race design is supplied in 1000, 2000, 4000, and 6000 PSI. The tri race design is supplied in 10,000 and 15,000 PSI.

JOURNAL BEARING DESIGN

BEST SWIVEL JOINTS SERIES "G" led the industry with an advanced design that extends service life, improves operational safety, provides superior sealing integrity and allows for inline inspection and repair. The **BEST SERIES "G"** swivel joint has a long history of proven performance.

If you want advanced technology and proven product performance the **BEST SERIES "G"** will provide you with both.



SWIVEL JOINT REFERENCE CHART

Models	Color-Coding	Cold Working Pressure (psi)	Material	End Connections	Sizes								Notes	
					3/4	1	1-1/4	1-1/2	2	2-1/2	3	4		
High-Pressure Swivel Joints BSR	Dark Blue	2,000	Carbon Steel	Threaded	•	•	•	•	•	•	•	•	•	2
	Yellow	4,000		Threaded	•	•	•	•	•	•	•	•	•	2
	Silver	6,000		Threaded	•	•	•	•	•	•	•	•	•	2
Long Radius Swivel Joints	Olive Green*	10,000	Alloy Steel	Figure 1502 Union					Sour Gas		Sour Gas		3	
	Black	10,000	Alloy Steel	Female Line Pipe Threads					•		•		4	
	Red*	15,000	Alloy Steel	Figure 1502 Union					•		•		2	

NOTES

All body materials meet ASTM or AISI standards.

Consult factory for special sizes, styles, end connections or package units.

1. Flanged ends faced and drilled to 150lb or 300lb flange specifications, unless otherwise specified.
2. Furnished with nitrile packing and brass or stainless steel anti-extrusion ring.
3. Furnished with fluoroelastomer packing and stainless steel snap in races. **BEST** does not warrant the performance of any elastomer seal for sour gas service.
4. Power make up must be used for line pipe threaded connections to achieve rated cold working pressure.

Sour Gas Service

BEST manufactures sour gas swivel joints in accordance with the National Association of Corrosion Engineers (NACE) Standard MR-01-75 and the American Petroleum Institute's (API) Standard RP-14-E. These swivel joints are specially heat-treated and inspected for controlled hardness, Fluoroelastomer packing is used to isolate the races and bearings from line fluid.

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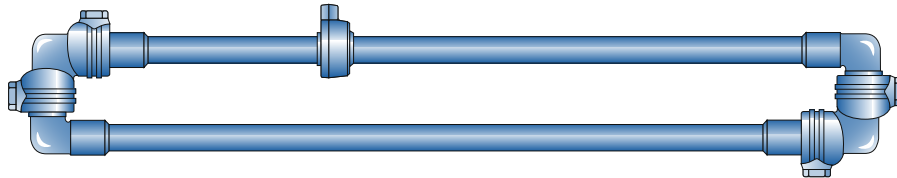




STEEL HOSES

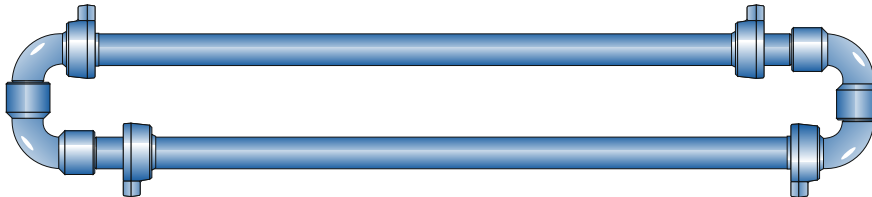
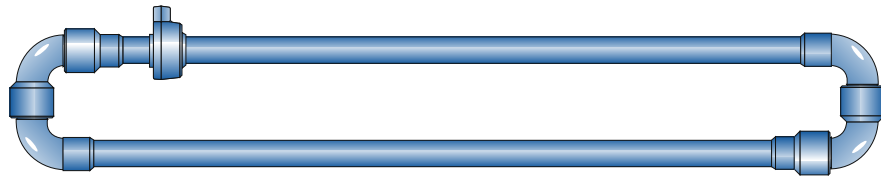
BEST cement and circulating all steel flexible hoses offer the widest range of proven designs for today's demanding requirements.

BEST hoses are available for all your requirements; 6,000 to 15,000 PSI.



BEST BSR-6 High-Pressure Hose
Style 50 Swivel Joints
Threaded Construction

BEST TLR-10 Long Radius Hose
Style 50 Swivel Joints
Threaded Construction

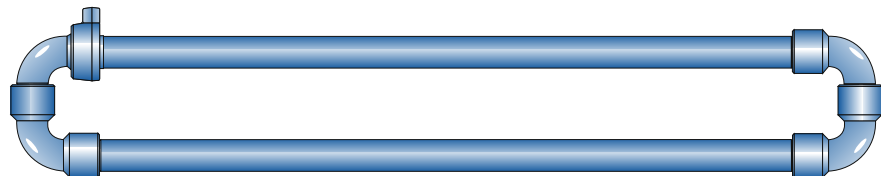


BEST TLR-15 Long Radius Hose
Style 50 Swivel Joints
Non-Pressure Seal Construction

* Available for H2S Service
@ 10,000 PSI W.P.

BEST ITR-15 Long Radius Hose
Style 50 & Style 10 Swivel Joints
Integral Construction

* Available for H2S Service
@ 10,000 PSI W.P.



PUP JOINTS

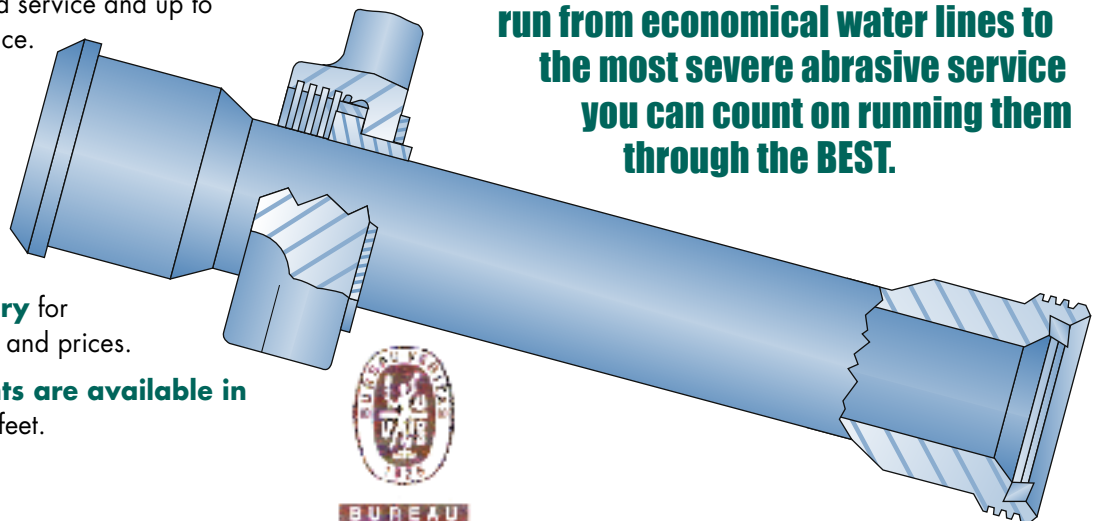
BEST offers a complete selection of pup joints up to 15,000 PSI in standard service and up to 10,000 PSI in sour gas service.

BEST Pup Joints are available in 2" through 4" sizes with threaded, welded or non-pressure seal threads in lengths up to 20 feet.

Please consult our factory for specific weights, dimensions and prices.

BEST's Integral Pup Joints are available in 2" and 3" sizes up to 20 feet.

Whether your service requirements run from economical water lines to the most severe abrasive service you can count on running them through the BEST.





UNIONS



BEST Hammer Unions have long provided the fast make-up and break-out capability needed in the oilfields around the world. **BEST** unions are manufactured with line pipe threads, butt weld or nonpressure-seal thread ends. **BEST** offers a wide range of sizes and working pressures to fit our customers requirements.

UNIONS Figure No.	WORKING Pressures (psi)	COLOR CODES		AVAILABLE SIZES						
		SUBS	NUT	1"	1-1/2"	2"	3"	4"	5"	6"
100	1,000	Yellow	Black			•	•	•		•
200	2,000	Gray	Blue	•		•	•	•		•
206	2,000	Gray	Blue	•		•	•	•		•
400	4,000	Red	Black			•	•	•		
602	6,000	Orange	Black	•	•	•	•	•		
607	6,000	Silver	Red			•				
1002	10,000	Blue	Red	•	•	•	•	•	•	
1003	10,000	Dark Green	Black					•	•	
1502	15,000	Red	Blue			•	•	•		



HIGH PRESSURE SWIVEL JOINTS

Available in size 3/4" through 4" 6,000 PSI non-shock cold working pressure, **BEST SWIVEL JOINTS** offer:

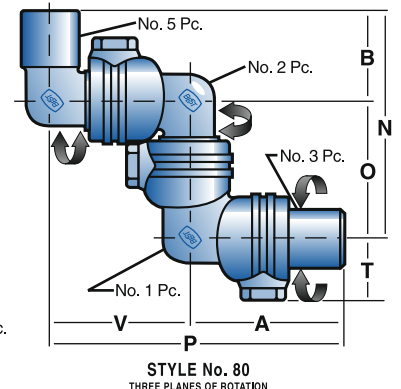
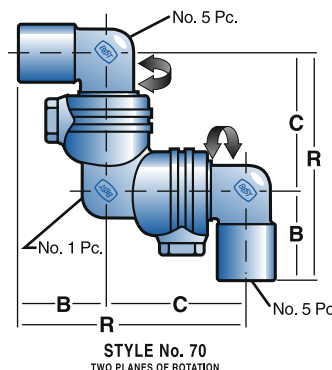
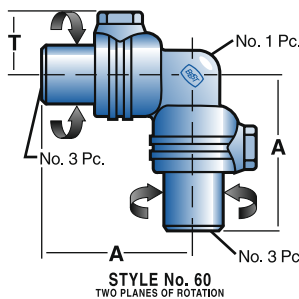
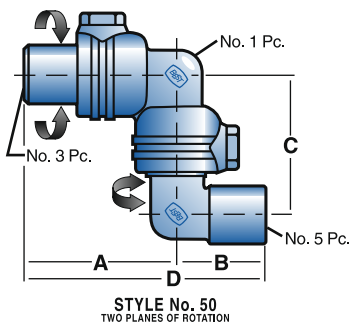
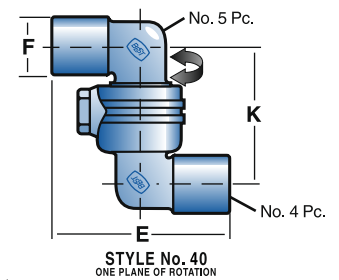
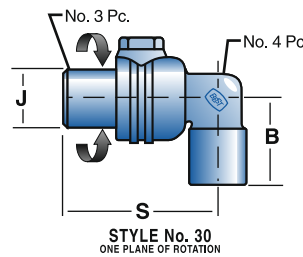
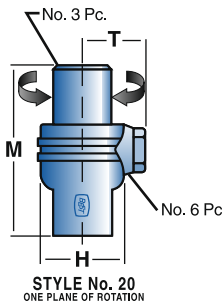
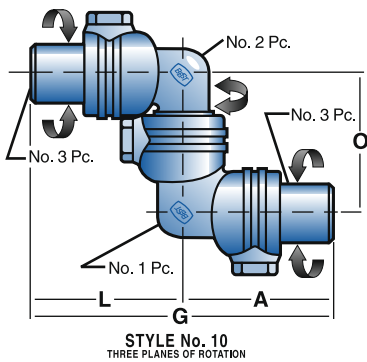
- Minimum flow restriction
- Heavy duty hex head style ball loading plug
- Grease retainer ring (insures clean ball race)
- Standard packing units (operating temperatures to 255°F) high temperature packing units (operating temperature to 450°F)
- Superior hardened ball races insure uniform surface hardness and depth for longer life under severe thrust and radial loading.

Standard swivel joints are provided with API line pipe threads. Other end connections are available on special order.

All sizes are available in eight styles, for 360° rotation in one, two or three planes.

All component parts and all styles of the HP-6,000 are interchangeable with similar parts by other major manufacturers. Consult factory for details.

BEST SWIVEL JOINTS for fluid handling, mud lines, rotary and circulating hose. And for the best flexibility under high pressure, specify BEST HIGH PRESSURE SWIVELS JOINTS.



SWIVEL JOINT THREADED END SIZES

SIZE (in)	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	V
3/4 - 1	4 5/8	2 23/32	4 7/32	7 11/32	5 7/16	1 3/4	9 1/4	2 7/16	1 3/4	4 7/32	4 5/8	5 3/16	6 15/16	4 7/32	8 27/32	6 15/16	4 5/8	1 7/8	4 7/32
1 1/4 - 1 1/2	4 23/32	3 3/16	4 9/32	7 29/32	6 3/8	2 1/2	10 1/32	2 7/8	2 3/8	4 9/32	5 5/16	5 15/32	7 15/32	4 9/32	9 9/16	7 15/32	4 23/32	2 1/8	4 27/32
2	5 27/32	4 1/32	5 7/8	9 7/8	8 1/16	3 1/8	12 5/16	4 1/8	3 5/16	5 7/8	6 15/32	6 21/32	10 1/32	6	12 11/32	9 29/32	5 27/32	2 21/32	6 1/2
2 1/2	7 1/8	4 7/8	7 11/16	12	9 3/4	4	14 1/4	4 1/2	3 3/4	7 11/16	7 1/8	8 1/4	12 9/16	7 11/16	14 13/16	12 9/16	7 1/8	2 15/16	7 11/16
3	8 5/8	4 5/8	7 15/16	13 1/4	9 1/4	4 5/16	18 1/16	5 13/16	4 1/2	8 3/4	9 7/16	9 1/8	12 9/16	7 15/16	17 3/8	12 9/16	9 7/16	3 3/8	8 3/4
4	9 7/8	5 9/16	9 5/8	15 7/16	11 1/8	5 1/2	20 11/16	7 1/16	5 1/4	10 9/16	10 13/16	9 5/8	15 3/4	10 3/16	20 7/16	15 3/16	10 13/16	3 9/16	10 9/16

All dimensions are approximate.



CERTIFICATIONS

BS EN ISO 9001:2000 CERTIFICATE OF REGISTRATION

PRODUCT CERTIFICATE OF TYPE APPROVAL



CERTIFICATE OF REGISTRATION

Quality Management System

This is to certify that:

Best Swivel Joints, L.P.
9298 Baythorne Drive
Houston
Texas
USA
77041

Hold Certificate No: FM 59115
and operate a Quality Management System, which complies with the requirements of BS EN ISO 9001:2000
for the following scope:

Design and manufacture of swivel joints, flowline equipment and valves for oilfield and related industries.
Job-shop machining to serve local businesses and markets.

For and on behalf of BSI, Inc:


Robert D. Pany
President

Originally registered: 7 Jun 2001 Latest issue: 6 Feb 2003 Page: 1 of 1





This certificate remains the property of BSI, Inc. and is not to be used for any other purpose without the written consent of BSI, Inc.

MARINE DIVISION
17 Rue Place des Reflets - La Defense 2
92400 Courbevoie - France
Tel. 33 1 42 91 53 48
Fax 33 1 42 91 28 94



Certificate N°:
10950/A0 BV
The attached Schedule forms part of the certificate
File Number : ATA 562B
Product Code : 73231

BUREAU VERITAS

CERTIFICATE OF TYPE APPROVAL

This is to certify that the product identified below was found to be in compliance with the relevant hereunder stated Regulations & standards

2" LONG RADIUS MODELS TLR-10, TLH-10 AND TLR-15 SWIVEL JOINTS, PUP JOINTS & STEEL HOSES ASSEMBLIES for sour and standard service

MANUFACTURED BY:

BEST SWIVEL JOINTS
Houston (Texas) - UNITED STATES OF AMERICA

SPECIFIED REGULATIONS & STANDARDS:
- United Kingdom, S.I. (1974) N° 289 and Dept. of Energy Guidance Notes.
- Bureau Veritas Rules for the Classification of Offshore Units

The Approval is valid until : 03/21/2006

BUREAU VERITAS MIAMI CENTRE At Paris la Défense, on : 03/21/2001


F. ROSAS
BVN Lead Surveyor


J. BENOIT
For the Secretary



The certificate remains valid until the date of expiry, however, unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains in service.
This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested.
The Certificate is not valid without the stamp of the Bureau mentioned by BUREAU VERITAS Inspection Centre.
The Certificate is not valid without the stamp of the Bureau mentioned by BUREAU VERITAS of any modification or change to the equipment in order to obtain a valid Certificate.
The conditions should comply BUREAU VERITAS of any modification or change to the equipment in order to obtain a valid Certificate.
The latest published regulations or standards mentioned above, and the Marine Division General Conditions are applicable.

PRODUCT CERTIFICATE OF TYPE APPROVAL

MARINE DIVISION
17 Rue Place des Reflets - La Defense 2
92400 Courbevoie - France
Tel. 33 1 42 91 53 48
Fax 33 1 42 91 28 94



Certificate N°:
10950/A0 BV
The attached Schedule forms part of the certificate
File Number : ATA 562B
Product Code : 73231

BUREAU VERITAS

CERTIFICATE OF TYPE APPROVAL

This is to certify that the product identified below was found to be in compliance with the relevant hereunder stated Regulations & standards

3" LONG RADIUS MODELS TLR-10, TLH-10 AND TLR-15 SWIVEL JOINTS, PUP JOINTS & STEEL HOSES ASSEMBLIES for sour and standard service

MANUFACTURED BY:

BEST SWIVEL JOINTS
Houston (Texas) - UNITED STATES OF AMERICA

SPECIFIED REGULATIONS & STANDARDS:
- United Kingdom, S.I. (1974) N° 289 and Dept. of Energy Guidance Notes.
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BEST Swivel Joints and Flow Line Equipment



BUREAU
VERITAS



Integral Hose Loops

2" & 3" for Standard
and H2S Service
10,000 & 15,000 PSI

Steel Hoses



Sizes 1" - 4"
2,000 PSI to 6,000 PSI

Extra High Pressure Swivels



BUREAU
VERITAS



Sizes 2" & 3"
10,000 PSI to 15,000 PSI
Ball Race & Journal Bearing Designs
Threaded and Integral Union

High Pressure Swivels



Sizes 3/4" - 4"
2,000 PSI to 6,000 PSI

Pup Joints

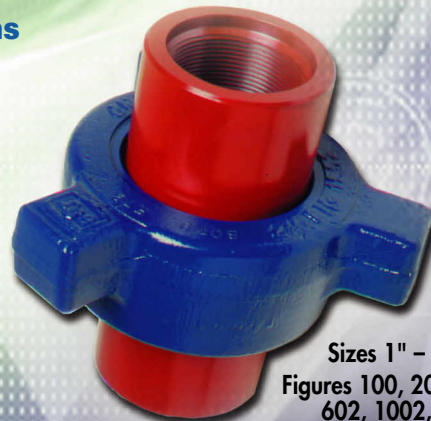


BUREAU
VERITAS



Sizes 2" through 4"
6,000 PSI to 15,000 PSI
Threaded and Integral &
Non-Pressure Seal Thread

Unions



Sizes 1" - 6"
Figures 100, 200, 206, 400,
602, 1002, 1003, 1502



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www.bestswivel.com

Represented By:

QUINCIE OILFIELD
PRODUCTS

HIGH PRESSURE PERFORMANCE

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