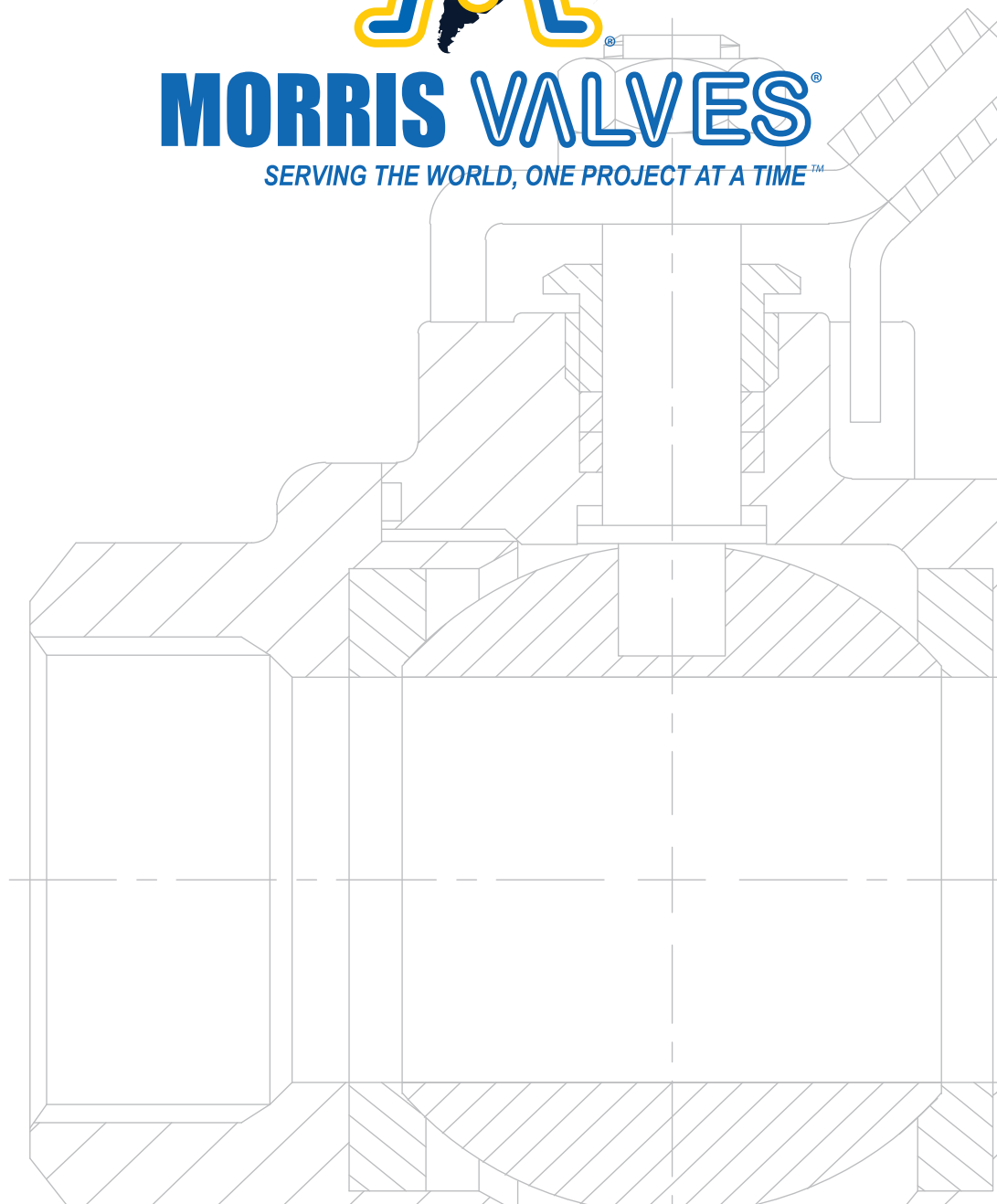




**MORRIS VALVES®**

*SERVING THE WORLD, ONE PROJECT AT A TIME™*



**OCGT API 5CT FITTINGS**

[www.morrisvalve.com](http://www.morrisvalve.com)



In 1984, our journey into the business of repairing valves and industrial instrumentation began. That journey has led us to represent and service well known American brands and companies. In early 2000, our experience and growing passion for the valve industry encouraged our decision to launch our own brand, Morris Valves. Starting with the highly requested Ball Valves, the brand has been based on the principal of quality and performance to match our customers' needs. Our high standards of production later lead us to incorporate other models such as Gate Valve and Check Valves to our production. These additions were carefully selected to match our Standard of Quality. Our success has been driven by our belief of "Tradition with Quality" in everything we do. Our products are developed with that belief which drives our growth and guides the service we provide to our customers.

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## Vision

Our vision is to be amongst the leading corporations in the supply of goods and services related to valves, their components and industrial equipment in general. We want to conquer new markets in conformity with international standards and remain committed to customer satisfaction, the welfare of our company and the sustainability our planet.

## Mission

Our mission is to use our highly trained, highly focused, and extremely motivated staff to work with manufacturers who value quality and have the vision for new development and product applications to ensure the timely provision of goods and services related to valves, their components and industrial equipment in general. We maintain a rigorous standard of customer satisfaction, which will provide for the welfare of the company, the welfare of the countries we serve, and most importantly the sustainability of the planet.

*"Serving the world, one project at a time"*

# United States of America

United States Patent and Trademark Office



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**TRADEMARK**

**PRINCIPAL REGISTER**

MORRIS VALVES, INC. (FLORIDA CORPORATION)  
5590 N.W. 84TH AVE.  
MIAMI, FL 33166

FOR: METAL PIPES AND METAL FITTINGS THEREFOR; METAL TUBES AND METAL FITTINGS THEREFOR, IN CLASS 6 (U.S. CLS. 2, 12, 13, 14, 23, 25 AND 50).

FIRST USE 2-11-2015; IN COMMERCE 2-11-2015.

OWNER OF U.S. REG. NO. 4,241,186.

THE COLOR(S) YELLOW, WHITE, AND BLUE IS/ARE CLAIMED AS A FEATURE OF THE MARK.

THE MARK CONSISTS OF A STYLIZED WHITE LETTER "V" WITH A BLUE OUTLINE INSIDE OF A STYLIZED LETTER "M" IN BLUE OUTLINED WITH YELLOW. THE BACKGROUND OF THE MARK IS WHITE.

SER. NO. 86-543,795, FILED 2-24-2015.

MARCIE MILONE, EXAMINING ATTORNEY



*Michelle K. Lee*

Director of the United States  
Patent and Trademark Office

## OCTG TUBING & CASING ACCESSORIES

### -TUBULAR PRODUCTS

#### \* PUP JOINTS

### -MACHINED ACCESSORIES

#### \* COUPLINGS.

#### \* NIPPLES.

#### \* SUBS.

#### \* CROSSOVER.

#### \* TEST CAPS.

#### \* TEST PLUGS.

#### \* LIFT CAPS

#### \* MAKER JOINTS

## PRODUCT DEFINITION

### Pup Joint

The pup joint is a short piece of drill pipe used to adjust the length of the string to the rotary table elevation for easy surface drilling practices and handling.

### Coupling

Machined Accessory used to connect two casing joints. The interior consists of female threads that are machined to match the external male threads of the long casing string.

### Nipples

Short-length accessories used in tubular strings for passing from one connection type to a different one.

### Rotary Substitutes (Subs)

**Subs** are generally part of most drill strings and have two main functions:

- \* To cross-over connections.

Crossover is a short subassembly used to enable connection between two threaded components of different thread types.

- \* As a disposable component or/and to extend the life of a more expensive drill stem member.

#### \*Thread LOC

Thread LOC is a seizing compound that hardens to prevent the thread from coming unscrewed. Apply it to threads to prevent loosening, leakage or corrosion.

- \* **API Thread Compound** This API-modified dope will seal and withstand pressures up to 10,000 PSI, without hardening or drying. The 902's lubrication helps reduce friction when running casing downhole and seals and protects threaded connection of casing strings.

This means that subs must be manufactured from selected bars of alloy steel (4140, 4145H), heat-treated to provide the strength and toughness required to carry the entire weight of the drill-string or to withstand high torque differentials.

Generally, subs exceed API specifications for drill pipe tool joint mechanical properties.

### Are classified into five main categories:

- \* **Bit Subs or Crossover Subs.** A short sub assembly is used to enable the connection of two components with differing thread types or sizes; connects the drill bit to the first piece of BHA (BOTTOM-HOLE ASSEMBLY).

Drill bits are manufactured with a PIN making make-up impossible without a bit sub.

Crossover subs come with a minimum yield strength of 110 ksi and are manufactured integral with: BOX x BOX, BOX x PIN, or PIN x PIN connections

- \* **Lift Subs or Handling Subs.** The lift sub is a solid device useful for picking up slick components at the surface. In other words, used to lift BHA components from the catwalk to the rig floor

- \* **Top Drive Subs or Saver Subs** serve as the sacrificial element between the drill string and the top drive, reducing repair and maintenance costs and

- \* **Workover Subs or Circulating Subs** are used to limit the allowable fluid-circulation rates

- \* **Float Sub.** A float sub has a body which contains a one-way check valve to prevent drilling mud and cuttings flowing back up the drill string.

**Marker Collar** Use the marker collar as a marker joint on the production casing. The collar will provide a reference point for the logging tools to orient their position in the well.





MECHANICAL PROPERTIES. API STEEL GRADES									
SMYS SPECIFIED MINIMUM YIELD STRENGTH(Ksi)		40	55	65	80	90	95	110	125
GROUP	1	H40	J55, K55		N80.1, N80Q				
	2			M65	L80.1, L80 13Cr	C90.1	C95, T95.1		
	3							P110	
	4								Q125.1
SPECIFIED MAXIMUM YIELD STRENGTHN(Ksi)		80		85	95	105	110	140	150
GROUP	1	H40 J55/ K55				C90	N80.1, N80Q		
	2			M65	L80.1, L80 9Cr, L80 13Cr		C95, T95.1		
	3							P110	
	4								Q125.1



CHEMICAL REQUIREMENTS.															
GROUP	GRADE	TYPE	C		Mn		Mo		Cr		Ni	Cu	P	S	Si
			min.	max.	min.	max.	min.	max.	min.	max.	max.	max.	max.	max.	max.
1	H40	-	-	-	-	-	-	-	-	-	-	-	0,030	0,030	-
	J55	-	-	-	-	-	-	-	-	-	-	-	0,030	0,030	-
	K55	-	-	-	-	-	-	-	-	-	-	-	0,030	0,030	-
	N80	1	-	-	-	-	-	-	-	-	-	-	0,030	0,030	-
	N80	Q	-	-	-	-	-	-	-	-	-	-	0,030	0,030	-
2	M65	-	-	-	-	-	-	-	-	-	-	-	0,030	0,030	-
	L80	1	-	0,43 <sup>a</sup>	-	1,90	-	-	-	-	0,25	0,35	0,030	0,030	0,45
	L80	9Cr	-	0,15	0,30	0,60	0,90	1,10	8,00	10,0	0,50	0,25	0,020	0,010	1,00
	L80	13Cr	0,15	0,22	0,25	1,00	-	-	12,0	14,0	0,50	0,25	0,020	0,010	1,00
	C90	1	-	0,35	-	1,20	0,25 <sup>b</sup>	0,85	-	1,50	0,99	-	0,020	0,010	-
	C90	2	-	0,50	-	1,90	-	NL	-	NL	0,99	-	0,030	0,010	-
	C95	-	-	0,45 <sup>c</sup>	-	1,90	-	-	-	-	-	-	0,030	0,030	0,45
	T95	1	-	0,35	-	1,20	0,25 <sup>d</sup>	0,85	0,40	1,50	0,9	-	0,020	0,010	-
	T95	2	-	0,50	-	1,90	-	-	-	-	0,99	-	0,030	0,010	-
3	P110	e	-	-	-	-	-	-	-	-	-	-	0,030 <sup>e</sup>	0,030 <sup>e</sup>	-
4	Q125	1	-	0,35	-	1,35	-	0,85	-	1,50	0,99	-	0,020	0,010	-
	Q125	2	-	0,35	-	1,00	-	NL	-	NL	0,99	-	0,020	0,020	-
	Q125	3	-	0,50	-	1,90	-	NL	-	NL	0,99	-	0,030	0,010	-
	Q125	4	-	0,50	-	1,90	-	NL	-	NL	0,99	-	0,030	0,020	-

a The carbon content for L80 may be increased up to 0,50 % maximum if the product is oil-quenched.

b The molybdenum content for Grade C90 Type 1 has no minimum tolerance if the wall thickness is less than 17,78 mm.

c The carbon content for C95 may be increased up to 0,55 % maximum if the product is oil-quenched.

d The molybdenum content for T95 Type 1 may be decreased to 0,15 % minimum if the wall thickness is less than 17,78 mm.

e For EW Grade P110, the phosphorus content shall be 0,020 % maximum and the sulfur content 0,010 % maximum.

NL = no limit. Elements shown shall be reported in product analysis.

API Specification 5CT / ISO 11960

## Casing & Tubing Pup Joints

Pup joints are manufactured per API Spec 5CT using prime API monogrammed, seamless oil country tubing.

\* As with all products, each piece is marked with a distinctive heat number that is fully traceable.

\* A complete range of sizes (1" to 4.5"), weights (standard or heavy wall), and grades (J-55, N-80, L-80, and P-110)

\* Are commonly available from stock in 2', 3', 4', 6', 10' AND 20" lengths.

\* Other lengths are available upon request.

\* Premium pup joints are also available with premium connections and in API or exotic alloy grades.

## Premium Tubing Pup Joints

Seamless pup joints with premium connections are available in API and exotic alloy grades. Premium ends are threaded in house.

**Perforated Pup Joints** Available with standard or special perforation spacing. Each joint has four rows of 3/8 inch holes drilled longitudinally along the tube.

Optional patterns, hole size, and lengths furnished upon request.





API 5CT TUBING Pup Joint Specifications	
O.D	3/4" – 4-1/2"
WEIGHT	STANDARD or HEAVY WALL
LENGTH	2,3,4,6,8,10 12 ft. (with other lengths available upon request)
GRADES	J-55, N-80, N-80Q & T, L-80, P-110
END CONNECTIONS	EUE, NUE, and Premium Connections of leading manufacturers available.
SURFACE	SURFACE TREATMENT COATING, AVAILABE


API 5CT CASING Pup Joint Specifications	
O.D	4-1/2" – 20"
WEIGHT	STANDARD or HEAVY WALL
LENGTH	2,3,4,6,8,10, 12, 20 ft. (with other lengths available upon request)
GRADES	J-55, N-80, N-80Q & T, L-80, P-110
END CONNECTIONS	STC, LC, BTC and Premium Connections of leading manufacturers available.
SURFACE	SURFACE TREATMENT COATING, AVAILABE



## OCTG - Coupling for Casing & Tubing

Couplings are short lengths of pipe used to connect 2 joints of tubing or casing. They come with painted color codes on their external surface to indicate their grades. Are manufactured per API 5CT and 5B specifications.

API 5CT TUBING COUPLING.		
SPECIFICATION		
END CONNECTION: EXTERNAL UPSET END (EUE)		
COUPLING SIZE (PIPE ) O.D(IN)	1.900, 2-3/8, 2-7/8, 3-1/2, 4, 4-1/2	
LENGTH	3-3/4" - 6.5"	
GRADE	J-55, C-75, L-80, N-80, C-95, P-110	
SURFACE(OPTION)	Electro-zinc plated Phosphoresced	
END CONNECTION: NON – UPSET END NUE		
COUPLING SIZE (PIPE) O.D(IN)	1.900, 2-3/8, 2-7/8, 3-1/2, 4, 4-1/2	
LENGTH	3-3/4" - 6.5"	
GRADE	J-55, C-75, L-80, N-80, C-95, P-110	
SURFACE(OPTION)	Electro-zinc plated Phosphoresced	

API 5CT CASING COUPLING.	
SPECIFICATION	
COUPLING SIZE (PIPE ) O.D(IN)	4-1/2, 5, 5-1/2, 6-5/8, 7, 7-5/8, 8-5/8, 9-5/8, 10-3/4, 11-3/4, 13-3/8, 16, 18-5/8, 20
GRADE	H-40, J-55, K-55, C-75, L-80, N-80, C-95, AS-95, P-110, L80-13CR
Short Round-Thread Casing (STC)	
Long Round-Thread Casing (LTC)	
Buttress Thread Casing (BTC)	





API 5CT COUPLING PIPE GRAADE IDENTIFICATIONS COLOR	
GRADE	COLOR CODE (OUTSIDE PAINTED)
H-40	Black
J-55 or K-55	Green
N-80	Red
M-65 or L-80	Red with one Brown Band
L-80 Type 9CR	Red with two Yellow Bands
L-80 Type 13CR	Red with one Yellow Band
C-90 Type 1	Purple
C-90 Type 2	Purple with one Yellow Band
T-95 Type 1	Silver
T-95 Type 2	Silver with one Yellow Band
C-95	Brown
P-110	White
Q-125 Type 1	Orange
Q-125 Type 2	Orange with one Yellow Band
Q-125 Type 3	Orange with one Green Band
Q-125 Type 4	Orange with one Brown Band



## API 5ct crossover nipples.

Used to connect tubing pipes. The placement is male which is easy and flexible to operate. We can do different types and specifications per the clients' requirement.

API 5CT NIPPLES Specifications	
CASING NIPPLES	
O.D	2 3/8" to 13-3/8"
WEIGHT	STANDARD or HEAVY WALL
LENGTH	TYPICAL LENGTH 24", 30" & 36"
GRADES	J-55, N-80, N-80Q & T, L-80, P-110
END CONNECTIONS	STC, LC, BTC and Premium Connections of leading manufacturers available.
TUBING NIPPLES	
O. D	1.9 - 4-1/2"
WEIGHT	
LENGTH	
GRADES	J-55, N-80, N-80Q & T, L-80, P-110
END CONNECTIONS	EUE, NUE, and Premium Connections of leading manufacturers available.

## ROTARY SUBS



## ROTARY SUBS

OCTG Rotary Subs include:

Straight OD Subs,

Reduced Section Subs,

Cross Over Subs (Drill Pipe to Drill Collar or Drill Collar to Drill Collar)

Bit Subs, and

Kelly Saver Subs.

**The Rotary Subs are available in standard lengths of 36" or 48". Any other length can also be supplied.**

Made from AISI 4140/ 4145H modified alloy steel, fully heat treated to a Brignell Hardness range of 285 – 341 and have an IZOD impact strength of minimum 40 ft-lbs. The connections are machined and finished per API 7-1. Thread roots are cold rolled after machining and phosphatized to prevent galling during initial make-up. Rotary Subs are shipped with pressed steel thread protectors installed.

### Straight OD Subs

Overall Length, Diameter, Bore, Size and type of upper and lower connections, indicating pin or box, and any special features

### Reduced Section Subs, additional information required is:

OD of reduced section

Length of reduced section: 8", 12", 18", or 24"

### Bit Subs, additional information required is:

Float Bore, size and type

### Kelly Saver Subs, additional information required is:

Kelly Saver type, stretch or latch-on

Casing OD and weight for sizing rubber casing protector





*A Tradition of Quality*

*Our passion is to develop  
solutions for difficult situations in  
Industrial Applications, no matter  
how large or small the project.*

*"Serving the world, one project at a time"*

