



## TIGES RODS

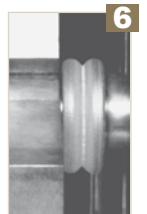
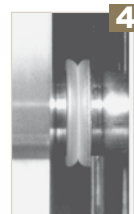
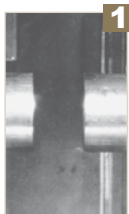
### 3 Tiges de forage Drill Rods

Le soudage par friction est un procédé mécanique en phase solide au cours duquel l'énergie générée par le frottement est utilisée pour créer un joint de soudure parfait entre le raccord et le tube.

- 1 - Le raccord est mis en rotation alors que le tube est mis en pression contre ce dernier.
- 2 - Une première pression faible est appliquée afin de minimiser le couple initial ainsi que les légères imperfections de surface. Une seconde pression plus importante est ensuite appliquée pour augmenter la température jusqu'à ce que l'état plastique des aciers soit atteint.
- 3 - Durant cette phase de chauffage, l'acier est malléable et commence à se déformer sous l'action de la pression de contact, créant ainsi un excédent d'acier sur l'extérieur et sur l'intérieur.
- 4 - La chaleur commence à se transmettre par conduction à l'arrière de chacune des surfaces en contact par friction. La déformation ductile peut donc se faire en profondeur.
- 5 - Au moment optimal la rotation est stoppée. La liaison se termine par l'application d'une force de forgeage.
- 6 - La force axiale est soit maintenue ou augmentée afin que le joint de soudure soit homogène.

Friction welding is a completely mechanical solid-phase process in which heat generated by friction is used to create the ideal conditions for a high-integrity welded joint between the tool joint and the tube.

- 1 - The tool joint is rotated whilst the tube is advanced into pressure contact with it.
- 2 - A first, light, frictional load is applied to minimise initial torque and smooth surface imperfections. A higher, second frictional load is then applied to increase the temperatures of the faying surfaces until they reach a plastic state.
- 3 - During this heating phase, softened material begins to extrude in response to the applied pressure, creating an annular upset.
- 4 - Heat is conducted away from the interfacial area to metal behind the faying surfaces to impart adequate "deep ductility" for forging of the components to take place.
- 5 - At the optimum moment, the rotating component is brought to a controlled stop. Bonding can now take place by the application of a forging force.
- 6 - The original axial load is either maintained or increased, hot working the joint to form a homogeneous, full-surface, full-diameter, high-integrity weld.



#### NOMENCLATURE TIGES / ROD NOMENCLATURE

Epaisseur de Paroi / Wall Thickness	
4	4.00 mm
6	6.35 mm
8	8.80 mm

Tiges	Ø ext.	Epaisseur de paroi	Type de filetage	Longueur
R D 0 8 9	6	2 3 8 R	1 5 0	
Drill rods	Outer Ø	Wall thickness	Type of thread	Length

#### Longueur / Length

075	0.75 m
100	1.00 m
120	1.20 m
150	1.50 m
170	1.70 m
180	1.80 m
183	1.83 m
190	1.90 m
200	2.00 m
300	3.00 m
400	4.00 m
450	4.50 m
600	6.00 m
609	6.09 m
762	7.62 m

#### Diam. Extérieurs Outer Diameters

045	44.5 mm
055	55 mm
060	60 mm
070	70 mm
076	76 mm
089	89 mm
101	101 mm
114	114 mm

#### TYPE DE FILETAGE / TYPE OF THREAD

R406	RD 40	6 tpi
R506	RD 50	6 tpi
R704	RD 70	4 tpi
238R	2 3/8"	API Reg (Regular)
238I	2 3/8"	API IF (Internal Flush)
238F	2 3/8"	API FH (Full Hole)
278R	2 7/8"	API Reg (Regular)
278I	2 7/8"	API IF (Internal Flush)
278F	2 7/8"	API FH (Full Hole)
312R	3 1/2"	API Reg (Regular)
312I	3 1/2"	API IF (Internal Flush)
312F	3 1/2"	API FH (Full Hole)
412R	4 1/2"	API Reg (Regular)
412I	4 1/2"	API IF (Internal Flush)
412F	4 1/2"	API FH (Full Hole)
658R	6 5/8"	API Reg (Regular)
658I	6 5/8"	API IF (Internal Flush)
658F	6 5/8"	API FH (Full Hole)
758R	7 5/8"	API Reg (Regular)
758I	7 5/8"	API IF (Internal Flush)
758F	7 5/8"	API FH (Full Hole)

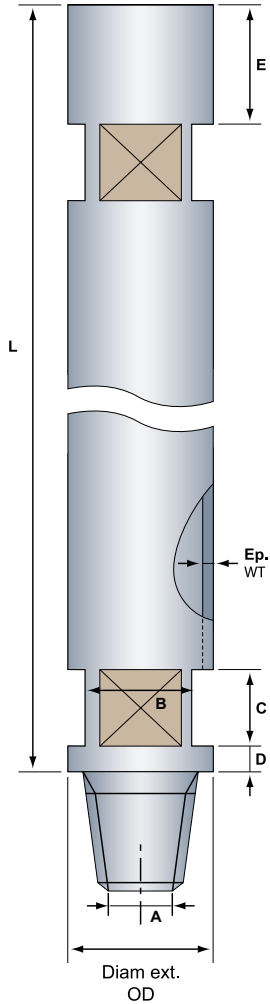
#### Longueur / Length

03F	3 ft
05F	5 ft
10F	10ft



# TIGES RODS

## 3 Tiges de forage Drill Rods



### RD 40-6 – 44.5 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C	D	E	
44.5	6.3	500	3.5	22	38	50	18	73	RD0456R406050
44.5	6.3	750	5	22	38	50	18	73	RD0456R406075
44.5	6.3	1000	6.5	22	38	50	18	73	RD0456R406100
44.5	6.3	1500	8.5	22	38	50	18	73	RD0456R406150
44.5	6.3	2000	10.5	22	38	50	18	73	RD0456R406200
44.5	6.3	3000	12.5	22	38	50	18	73	RD0456R406300

### RD 50-6 – 55 mm / 60 mm / 70 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C	D	E	
55	6.3	500	4	35	46	50	15	73	RD0551R506050
55	6.3	750	5.5	35	46	50	15	73	RD0551R506075
55	6.3	1000	7.0	35	46	50	15	73	RD0551R506100
55	6.3	1500	10	35	46	50	15	73	RD0551R506150
55	6.3	2000	13	35	46	50	15	73	RD0551R506200
55	6.3	3000	16	35	46	50	15	73	RD0551R506300
60	6.3	500	17	30	50	40	10	60	RD0601R506050
60	6.3	750	4.5	30	50	40	10	60	RD0601R506075
60	6.3	1000	6	30	50	40	10	60	RD0601R506100
60	6.3	1500	8	30	50	40	10	60	RD0601R506150
60	6.3	2000	13	30	50	40	10	60	RD0601R506200
60	6.3	3000	17.5	30	50	40	10	60	RD0601R506300
70	4.0	500							RD0704R506050
70	4.0	750							RD0704R506075
70	4.0	1000							RD0704R506100
70	4.0	1500							RD0704R506150
70	4.0	2000							RD0704R506200
70	4.0	3000							RD0704R506300

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### RD 70-4 – 89 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C	D	E	
89	4.0	1000							RD0894R704100
89	4.0	1500							RD0894R704150
89	4.0	2000							RD0894R704200
89	4.0	3000							RD0894R704300
89	6.3	1000							RD0896R704100
89	6.3	1500							RD0896R704150
89	6.3	2000							RD0896R704200
89	6.3	3000							RD0896R704300
89	6.3	4500							RD0896R704450
89	6.3	6000							RD0896R704600

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### 2 3/8" API REG – 76 mm

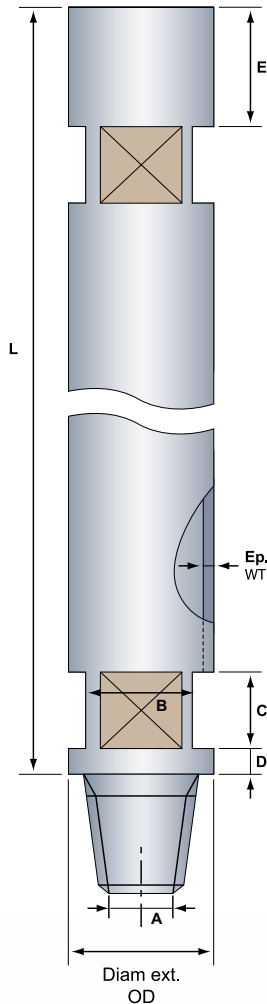
Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C±0.1	D	E	
76	4.0	500	9	30	65	40	13.8	90	RD0764238R050
76	4.0	1000	12	30	65	40	13.8	90	RD0764238R100
76	4.0	1500	16	30	65	40	13.8	90	RD0764238R150
76	4.0	2000	19	30	65	40	13.8	90	RD0764238R200
76	4.0	3000	24	30	65	40	13.8	90	RD0764238R300
76	6.3	1000	17	30	65	40	13.8	90	RD0766238R100
76	6.3	1500	23	30	65	40	13.8	90	RD0766238R150
76	6.3	2000	28	30	65	40	13.8	90	RD0766238R200
76	6.3	3000	39	30	65	40	13.8	90	RD0766238R300
76	6.3	4000	50	30	65	40	13.8	90	RD0766238R400
76	6.3	4500	55	30	65	40	13.8	90	RD0766238R450
76	6.3	6000	72	30	65	40	13.8	90	RD0766238R600





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## 3 Tiges de forage Drill Rods



### 2 3/8" API REG – 89 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C $\pm 0.1$	D	E	
89	4.0	500	8	30	65	40	23.8	100	RD0894238R050
89	4.0	1000	13	30	65	40	23.8	100	RD0894238R100
89	4.0	1500	18	30	65	40	23.8	100	RD0894238R150
89	4.0	2000	22	30	65	40	23.8	100	RD0894238R200
89	4.0	3000	30	30	65	40	23.8	100	RD0894238R300
89	6.3	500	9	30	65	40	23.8	100	RD0896238R050
89	6.3	1000	17	30	65	40	23.8	100	RD0896238R100
89	6.3	1500	24	30	65	40	23.8	100	RD0896238R150
89	6.3	2000	30	30	65	40	23.8	100	RD0896238R200
89	6.3	3000	43	30	65	40	23.8	100	RD0896238R300
89	6.3	4500	62	30	65	40	23.8	100	RD0896238R450
89	6.3	6000	81	30	65	40	23.8	100	RD0896238R600

### 2 3/8" API IF – 89 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C $\pm 0.1$	D	E	
89	4.0	500	8	40	65	40	23.8	100	RD0894238I050
89	4.0	1000	13	40	65	40	23.8	100	RD0894238I100
89	4.0	1500	18	40	65	40	23.8	100	RD0894238I150
89	4.0	2000	22	40	65	40	23.8	100	RD0894238I200
89	4.0	3000	30	40	65	40	23.8	100	RD0894238I300
89	6.3	500	9	40	65	40	23.8	100	RD0896238I050
89	6.3	1000	17	40	65	40	23.8	100	RD0896238I100
89	6.3	1500	24	40	65	40	23.8	100	RD0896238I150
89	6.3	2000	30	40	65	40	23.8	100	RD0896238I200
89	6.3	3000	43	40	65	40	23.8	100	RD0896238I300
89	6.3	4500	62	40	65	40	23.8	100	RD0896238I450
89	6.3	6000	81	40	65	40	23.8	100	RD0896238I600

### 2 7/8" API REG – 89 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C $\pm 0.1$	D	E	
89	4.0	500	8						RD0894278R050
89	4.0	1000	13						RD0894278R100
89	4.0	1500	18						RD0894278R150
89	4.0	2000	22						RD0894278R200
89	4.0	3000	30						RD0894278R300
89	6.3	500	10						RD0896278R050
89	6.3	1000	17						RD0896278R100
89	6.3	1500	24						RD0896278R150
89	6.3	2000	30						RD0896278R200
89	6.3	3000	43						RD0896278R300
89	6.3	4500	62						RD0896278R450
89	6.3	6000	81						RD0896278R600

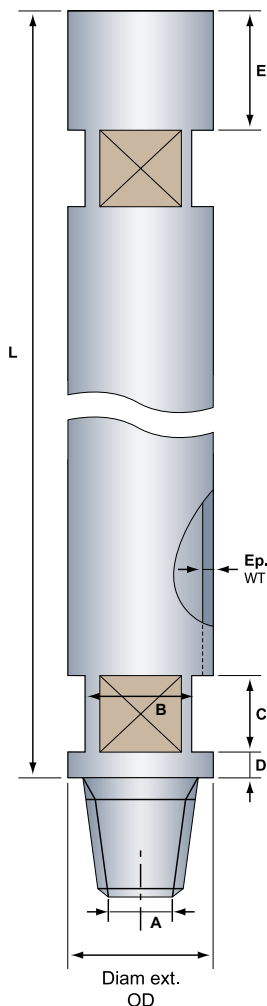
Nous consulter  
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### 3 Tiges de forage Drill Rods

## TIGES RODS



#### 2 7/8" API IF – 101 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C±0.1	D	E	
101	6.3	500	17	50	80	40	21.1	110	RD1146278I050
101	6.3	1000	26	50	80	40	21.1	110	RD1146278I100
101	6.3	1500	35	50	80	40	21.1	110	RD1146278I150
101	6.3	2000	43	50	80	40	21.1	110	RD1146278I200
101	6.3	3000	58	50	80	40	21.1	110	RD1146278I300
101	6.3	4500	85	50	80	40	21.1	110	RD1146278I450
101	6.3	6000	110	50	80	40	21.1	110	RD1146278I600
101	8.8	500	20	50	80	40	21.1	110	RD1148278I050
101	8.8	1000	30	50	80	40	21.1	110	RD1148278I100
101	8.8	1500	40	50	80	40	21.1	110	RD1148278I150
101	8.8	2000	50	50	80	40	21.1	110	RD1148278I200
101	8.8	3000	70	50	80	40	21.1	110	RD1148278I300
101	8.8	4500	101	50	80	40	21.1	110	RD1148278I450
101	8.8	6000	132	50	80	40	21.1	110	RD1148278I600

#### 3 1/2" API REG – 114 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C±0.1	D	E	
114	6.3	500	17	40	95	40	22.7	118	RD1148312R050
114	6.3	1000	26	40	95	40	22.7	118	RD1146312R100
114	6.3	1500	35	40	95	40	22.7	118	RD1146312R150
114	6.3	2000	43	40	95	40	22.7	118	RD1146312R200
114	6.3	3000	60	40	95	40	22.7	118	RD1146312R300
114	6.3	4500	85	40	95	40	22.7	118	RD1146312R450
114	6.3	6000	110	40	95	40	22.7	118	RD1146312R600
114	6.3	500	20	40	95	40	22.7	118	RD1148312R050
114	6.3	1000	31	40	95	40	22.7	118	RD1148312R100
114	6.3	1500	42	40	95	40	22.7	118	RD1148312R150
114	8.8	2000	54	40	95	40	22.7	118	RD1148312R200
114	8.8	3000	77	40	95	40	22.7	118	RD1148312R300
114	8.8	4500	101	40	95	40	22.7	118	RD1148312R450
114	8.8	6000	136	40	95	40	22.7	118	RD1148312R600

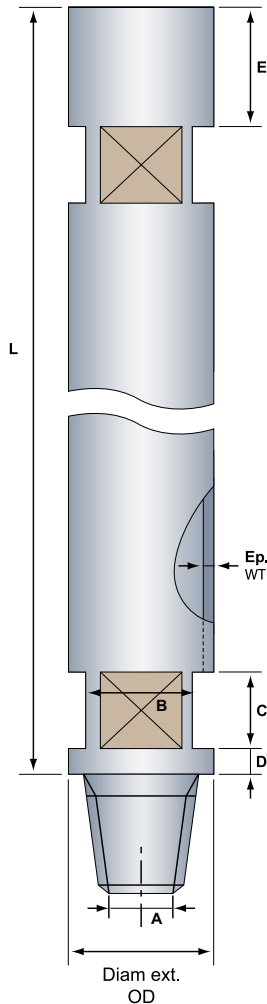
AUTRES TIGES SUR DEMANDE / OTHER RODS ON REQUEST





# TIGES RODS

## 3 Tiges de forage Drill Rods



### 3 1/2" API FH – 114 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C±0.1	D	E	
114	6.3	1000							RD1146312F100
114	6.3	1500							RD1146312F150
114	6.3	2000							RD1146312F200
114	6.3	3000							RD1146312F300
114	6.3	4500							RD1146312F450
114	6.3	6000							RD1146312F600
				Nous consulter Please consult us					

### 3 1/2" API IF – 114 mm

Diam. Ext. OD (mm)	Ep. WT (mm)	Longueur L Length L (mm)	Poids Weight (kg)	Dimensions / Measurements mm					N° Article Part No.
				A	B	C±0.1	D	E	
114	6.3	500	17	55	95	40	22.1	130	RD1146312I050
114	6.3	1000	26	55	95	40	22.1	130	RD1146312I100
114	6.3	1500	35	55	95	40	22.1	130	RD1146312I150
114	6.3	2000	43	55	95	40	22.1	130	RD1146312I200
114	6.3	3000	60	55	95	40	22.1	130	RD1146312I300
114	6.3	4500	85	55	95	40	22.1	130	RD1146312I450
114	8.8	6000	110	55	95	40	22.1	130	RD1146312I600
114	8.8	500	20	55	95	40	22.1	130	RD1148312I050
114	8.8	1000	31	55	95	40	22.1	130	RD1148312I100
114	8.8	1500	42	55	95	40	22.1	130	RD1148312I150
114	8.8	2000	54	55	95	40	22.1	130	RD1148312I200
114	8.8	3000	77	55	95	40	22.1	130	RD1148312I300
114	8.8	4500	101	55	95	40	22.1	130	RD1148312I450
114	8.8	6000	136	55	95	40	22.1	130	RD1148312I600

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