

API Drill Pipe and Tool Joint Combinations

DRILL PIPE					TOOL JOINT									MECHANICAL PROPERTIES									
Outside Dia. Of Pipe (OD)	Wall Thickness of Pipe (WT)		Inside Dia. Of Pipe (ID)	UPSET END	Grade	Connection Number or Size	Outside Dia. Of Pin and Box (D)		Inside Dia. Of PIN (d)		Total Length Tool Joint Pin (Lp)	Pin Tong space (Lpb)	Box Tong Space (Lb)	Combined Length of Pin and Box (L)	Dia. Of Elevator Upset (DPE/DTE)	Pipe Tensile Strength	Pipe Internal Pressure	Pipe Collapse Pressure	Pipe Torsional Strength	Torsional Yield Strength of Tool Joint	Torsional Ratio TJ to Drill Pipe	Recommnd Make-up Torque	
	in	Weight Designation					in	in	in	mm													in
2 3/8	6.65	0.280	1.815	EU	E75	NC26	3 3/8	85.7	1 3/4	44.5	10	7	8	15	2 9/16	138,000	15,470	15,600	6,250	6,875	1.10	4,130	
							X95	3 3/8	85.7	1 3/4	44.5	10	7	8	15	2 9/16	175,000	19,600	19,760	7,920	6,875	0.87	4,130
							G105	3 3/8	85.7	1 3/4	44.5	10	7	8	15	2 9/16	194,000	21,660	21,840	8,750	6,875	0.79	4,130
							S135	3 3/8	85.7	1 3/4	44.5	10	7	8	15	2 9/16	249,000	27,850	28,080	11,250	6,875	0.61	4,130
2 7/8	10.40	0.362	2.151	EU	E75	NC31	4 1/8	104.8	2 1/8	54.0	10 1/2	7	9	16	3 3/16	214,000	16,530	16,510	11,550	11,871	1.03	7,120	
							X95	4 1/8	104.8	2	50.8	10 1/2	7	9	16	3 3/16	272,000	20,930	20,910	14,640	13,196	0.90	7,920
							G105	4 1/8	104.8	2	50.8	10 1/2	7	9	16	3 3/16	300,000	23,140	23,110	16,180	13,196	0.82	7,920
							S135	4 3/8	111.1	1 5/8	41.3	10 1/2	7	9	16	3 3/16	386,000	29,750	29,720	20,800	16,946	0.81	10,170
3 1/2	9.50	0.254	2.992	EU	E75	NC38	4 3/4	120.7	2 11/16	68.3	11 1/2	8	10 1/2	18 1/2	3 7/8	194,000	9,530	10,000	14,150	18,107	0.91	10,860	
3 1/2	13.30	0.368	2.764	EU	E75	NC38	4 3/4	120.7	2 11/16	68.3	12	8	10 1/2	18 1/2	3 7/8	272,000	13,800	14,110	18,550	18,107	0.98	10,860	
							X95	5	127.0	2 9/16	65.1	12	8	10 1/2	18 1/2	3 7/8	344,000	17,480	17,880	23,500	20,327	0.86	12,200
							G105	5	127.0	2 7/16	61.9	12	8	10 1/2	18 1/2	3 7/8	380,000	19,320	19,760	25,970	22,213	0.86	13,330
							S135	5	127.0	2 1/8	54.0	12	8	10 1/2	18 1/2	3 7/8	489,000	24,840	25,400	33,390	26,516	0.79	15,910
3 1/2	15.50	0.449	2.602	EU	E75	NC38	5	127.0	2 9/16	65.1	12	8	10 1/2	18 1/2	3 7/8	323,000	16,840	16,770	21,090	20,327	0.96	12,200	
							X95	5	127.0	2 7/16	61.9	12	8	10 1/2	18 1/2	3 7/8	409,000	21,330	21,250	26,710	22,213	0.83	13,330
							G105	5	127.0	2 1/8	54.0	12	8	10 1/2	18 1/2	3 7/8	452,000	23,570	23,480	29,520	26,516	0.90	15,910
3 1/2	15.50	0.449	2.602	EU	S135	NC40	5 1/2	139.7	2 1/4	57.2	11 1/2	7	10	17	3 7/8	581,000	30,310	30,190	37,950	32,944	0.87	19,770	
4	14.00	0.330	3.340	IU	E75	NC40	5 1/4	133.4	2 13/16	71.4	11 1/2	7	10	17	4 3/16	285,000	10,830	11,350	23,290	23,487	1.01	14,090	
							X95	5 1/4	133.4	2 11/16	68.3	11 1/2	7	10	17	4 3/16	361,000	13,720	14,380	29,500	25,673	0.87	15,400
							G105	5 1/2	139.7	2 7/16	61.9	11 1/2	7	10	17	4 3/16	400,000	15,160	15,900	32,600	30,114	0.92	18,070
							S135	5 1/2	139.7	2	50.8	11 1/2	7	10	17	4 3/16	514,000	19,490	20,140	41,920	36,363	0.87	21,820
4	14.00	0.330	3.340	EU	E75	NC46	6	152.4	3 1/4	82.6	11 1/2	7	10	17	4 1/2	285,000	10,830	11,350	23,290	33,626	1.44	20,180	
							X95	6	152.4	3 1/4	82.6	11 1/2	7	10	17	4 1/2	361,000	13,720	14,380	29,500	33,626	1.14	20,180
							G105	6	152.4	3 1/4	82.6	11 1/2	7	10	17	4 1/2	400,000	15,160	15,900	32,600	33,626	1.03	20,180
							S135	6	152.4	3	76.2	11 1/2	7	10	17	4 1/2	514,000	19,490	20,140	41,920	39,230	0.94	23,540
4 1/2	13.75	0.271	3.958	IU	E75	NC46	6	152.4	3 3/8	85.7	11 1/2	7	10	17	4 11/16	270,000	7,900	7,170	25,910	30,656	1.18	18,390	
4 1/2	13.75	0.271	3.958	EU	E75	NC50	6 5/8	168.3	3 3/4	95.3	11 1/2	7	10	17	5	270,000	7,900	7,170	25,910	38,060	1.47	22,840	
4 1/2	16.60	0.337	3.826	IEU	E75	NC46	6 1/4	158.8	3 1/4	82.6	11 1/2	7	10	17	4 11/16	331,000	9,830	10,390	30,810	33,994	1.10	20,400	
							X95	6 1/4	158.8	3	76.2	11 1/2	7	10	17	4 11/16	419,000	12,450	12,760	39,020	39,659	1.02	23,800
							G105	6 1/4	158.8	3	76.2	11 1/2	7	10	17	4 11/16	463,000	13,760	13,820	43,130	39,659	0.92	23,800
							S135	6 1/4	158.8	2 3/4	69.9	11 1/2	7	10	17	4 11/16	595,000	17,690	16,770	55,450	44,872	0.81	26,920
4 1/2	16.60	0.337	3.826	EU	E75	NC50	6 5/8	168.3	3 3/4	95.3	11 1/2	7	10	17	5	331,000	9,830	10,390	30,810	38,060	1.24	22,840	
							X95	6 5/8	168.3	3 3/4	95.3	11 1/2	7	10	17	5	419,000	12,450	12,760	39,020	38,060	0.98	22,840
							G105	6 5/8	168.3	3 3/4	95.3	11 1/2	7	10	17	5	463,000	13,760	13,820	43,130	38,060	0.88	22,840
							S135	6 5/8	168.3	3 1/2	88.9	11 1/2	7	10	17	5	595,000	17,690	16,770	55,450	45,128	0.81	27,080
4 1/2	20.00	0.430	3.640	IEU	E75	NC46	6 1/4	158.8	3	76.2	11 1/2	7	10	17	4 11/16	412,000	12,540	12,960	36,900	39,659	1.07	23,800	
							X95	6 1/4	158.8	2 3/4	69.9	11 1/2	7	10	17	4 11/16	522,000	15,890	16,420	46,740	44,872	0.96	26,920
							G105	6 1/4	158.8	2 1/2	63.5	11 1/2	7	10	17	4 11/16	577,000	17,560	18,150	51,660	49,631	0.96	29,780
							S135	6 1/4	158.8	2 1/4	57.2	11 1/2	7	10	17	4 11/16	742,000	22,580	23,330	66,420	53,937	0.81	32,360
4 1/2	20.00	0.430	3.640	EU	E75	NC50	6 5/8	168.3	3 5/8	92.1	11 1/2	7	10	17	5	412,000	12,540	12,960	36,900	41,655	1.13	24,990	
							X95	6 5/8	168.3	3 1/2	88.9	11 1/2	7	10	17	5	522,000	15,890	16,420	46,740	45,128	0.97	27,080
							G105	6 5/8	168.3	3 1/2	88.9	11 1/2	7	10	17	5	577,000	17,560	18,150	51,660	45,128	0.87	27,080
							S135	6 5/8	168.3	3	76.2	11 1/2	7	10	17	5	742,000	22,580	23,330	66,420	57,801	0.87	34,680

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Outside Dia. Of Pipe (OD)	Wall Thickness of Pipe (WT)		Inside Dia. Of Pipe (ID)	UPSET END	Grade	Connection Number or Size	Outside Dia. Of Pin and Box (D)		Inside Dia. Of PIN (d)		Total Length ToolJoint Pin (Lp)	Pin Tong Spase (Lpb)	Box Tong Space (Lb)	Combined Length of Pin and Box (L)	Dia. Of Elevator Upset (DPE/DTE)	Pipe Tensile Strength	Pipe Internal Pressure	Pipe Collapse Pressure	Pipe Torsional Strength	Torsional Yield Strength of Tool Joint	Torsional Ratio TJ to Drill Pipe	Recommnd Make-up Torque
	in	Weight Designation					in	in	in	mm						in	mm	in	in	in	in	in
5	19.50	0.326	4.276	IEU	NC50	E75	6 5/8	168.3	3 3/4	95.3	11 1/2	7	10	17	5 1/8	396,000	9,500	10,070	41,170	38,060	0.92	22,840
						X95	6 5/8	168.3	3 1/2	88.9	11 1/2	7	10	17	5 1/8	501,000	12,040	12,020	52,140	45,128	0.87	27,080
						G105	6 5/8	168.3	3 1/4	82.6	11 1/2	7	10	17	5 1/8	554,000	13,300	13,000	57,630	51,708	0.90	31,020
						S135	6 5/8	168.3	2 3/4	69.9	11 1/2	7	10	17	5 1/8	712,000	17,100	15,670	74,100	63,407	0.86	38,040
5	25.60	0.500	4.000	IEU	NC50	E75	6 5/8	168.3	3 1/2	88.9	11 1/2	7	10	17	5 1/8	530,000	13,130	13,500	52,260	45,128	0.86	27,080
						X95	6 5/8	168.3	3	76.2	11 1/2	7	10	17	5 1/8	672,000	16,630	17,100	66,190	57,801	0.87	34,680
						G105	6 5/8	168.3	2 3/4	69.9	11 1/2	7	10	17	5 1/8	742,000	18,380	18,900	73,160	63,407	0.87	38,040
5	19.50	0.362	4.276	IEU	5 1/2FH	E75	7	177.8	3 3/4	95.3	13	8	10	18	5 1/8	396,000	9,500	10,070	41,170	62,903	1.53	37,740
						X95	7	177.8	3 3/4	95.3	13	8	10	18	5 1/8	501,000	12,040	12,020	52,140	62,903	1.21	37,740
						G105	7	177.8	3 3/4	95.3	13	8	10	18	5 1/8	554,000	13,300	13,000	57,630	62,903	1.09	37,740
						S135	7 1/4	184.2	3 1/2	88.9	13	8	10	18	5 1/8	712,000	17,100	15,670	74,100	72,484	0.98	43,490
5	25.60	0.500	4.000	IEU	5 1/2FH	E75	7	177.8	3 1/2	88.9	13	8	10	18	5 1/8	530,000	13,130	13,500	52,260	62,903	1.20	37,740
						X95	7	177.8	3 1/2	88.9	13	8	10	18	5 1/8	672,000	16,630	17,100	66,190	62,903	0.95	37,740
						G105	7 1/4	184.2	3 1/2	88.9	13	8	10	18	5 1/8	742,000	18,380	18,900	73,160	72,484	0.99	43,490
						S135	7 1/4	184.2	3 1/4	82.6	13	8	10	18	5 1/8	954,000	23,630	24,300	94,060	78,716	0.84	47,230
5 1/2	21.90	0.361	4.778	IEU	5 1/2FH	E75	7	177.8	4	101.6	13	8	10	18	5 11/16	437,000	8,610	5,440	50,710	55,934	1.10	33,560
						X95	7	177.8	3 3/4	95.3	13	8	10	18	5 11/16	554,000	10,910	7,850	64,230	62,903	0.98	37,740
						G105	7 1/4	184.2	3 1/2	88.9	13	8	10	18	5 11/16	612,000	12,060	9,060	70,990	72,484	1.02	43,490
						S135	7 1/2	190.5	3	76.2	13	8	10	18	5 11/16	787,000	15,510	12,670	91,280	87,171	0.95	52,300
5 1/2	24.70	0.415	4.670	IEU	5 1/2FH	E75	7	177.8	4	101.6	13	8	10	18	5 11/16	497,000	9,900	10,460	56,570	55,934	0.99	33,560
						X95	7 1/4	184.2	3 1/2	88.9	13	8	10	18	5 11/16	630,000	12,540	10,910	71,660	72,484	1.01	43,490
						G105	7 1/4	184.2	3 1/2	88.9	13	8	10	18	5 11/16	696,000	13,860	12,440	79,200	72,484	0.92	43,490
						S135	7 1/2	190.5	3	76.2	13	8	10	18	5 11/16	895,000	17,830	17,020	101,830	87,171	0.86	52,300
6 5/8	25.20	0.330	5.965	IEU	6 5/8FH	E75	8	203.2	5	127.0	13	8	11	19	6 15/16	489,000	6,540	1,550	70,580	73,662	1.04	44,200
						X95	8	203.2	5	127.0	13	8	11	19	6 15/16	620,000	8,280	2,920	89,400	73,662	0.82	44,200
						G105	8 1/4	209.6	4 3/4	120.7	13	8	11	19	6 15/16	685,000	9,150	3,610	98,810	86,238	0.87	51,740
						S135	8 1/2	215.9	4 1/4	108.0	13	8	11	19	6 15/16	881,000	11,770	6,040	127,050	109,227	0.86	65,540
6 5/8	27.70	0.362	5.901	IEU	6 5/8FH	E75	8	203.2	5	127.0	13	8	11	19	6 15/16	534,000	7,170	2,740	76,300	73,662	0.97	44,200
						X95	8 1/4	209.6	4 3/4	120.7	13	8	11	19	6 15/16	677,000	9,080	4,430	96,640	86,238	0.89	51,740
						G105	8 1/4	209.6	4 3/4	120.7	13	8	11	19	6 15/16	748,000	10,040	5,270	106,810	86,238	0.81	51,740
						S135	8 1/2	215.9	4 1/4	108.0	13	8	11	19	6 15/16	962,000	12,910	7,810	137,330	109,227	0.80	65,540