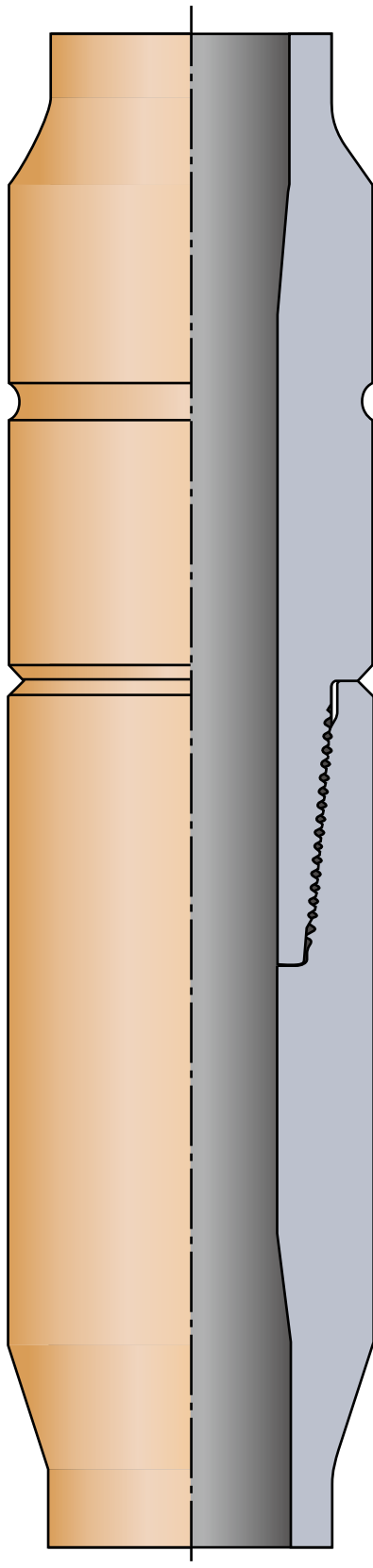
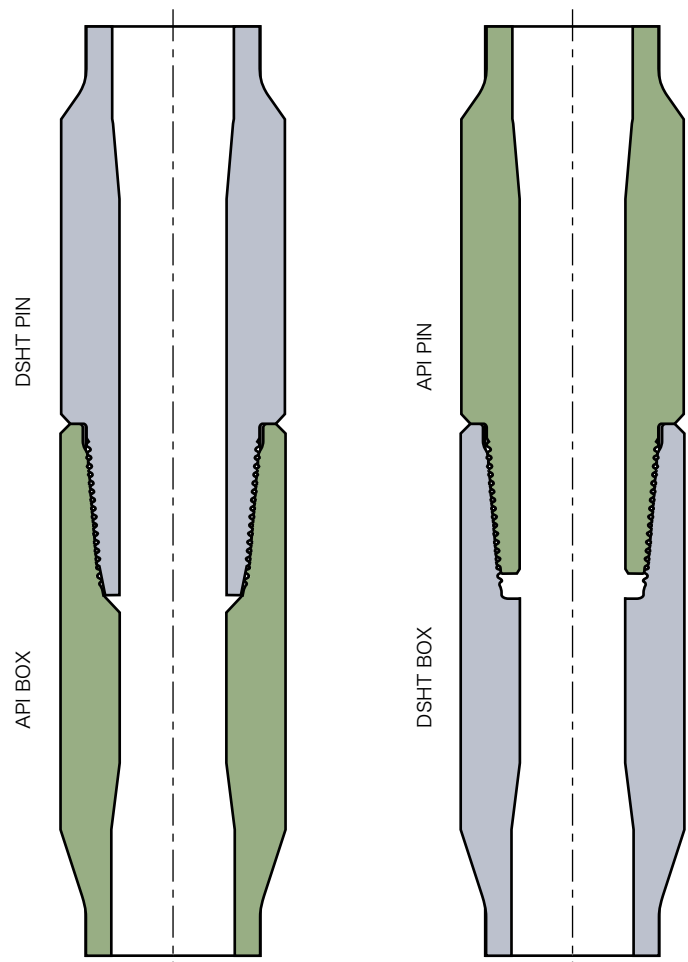


DSHT™

Double Shoulder High Torque Tool Joint



- High torsional yield strength
Internal/External double shoulder
- Minimum tensile stress on PIN thread
reduce SSC failure
- Large Tool Joint ID increase mud flow
- Interchangeable with API products
Drill collar/HW drill pipe/kelly etc,
- Easy repair in the world



DSHT Tool Joint / API Tool Joint Mechanical Properties

DRILL PIPE					TOOL JOINT							
Outside Dia. Of Pipe (OD)	Wall Thickness of Pipe (WT)		Inside Dia. Of Pipe (ID)	UPSET END	Grade	API or DSHT	Connection Number or Size	Outside Dia. Of Pin and Box (D)		Inside Dia. Of PIN (d)		Total Length ToolJoint Pin (Lp)
	in	Weight Designation						in	in	in	mm	
2 3/8	6.65	0.280	1.815	EU	X95	DSHT	NC26 2-3/8IF	3 3/8	85.7	1 5/8	41.3	10
					X95	API		3 3/8	85.7	1 3/4	44.5	10
					G105	DSHT		3 3/8	85.7	1 5/8	41.3	10
					G105	API		3 3/8	85.7	1 3/4	44.5	10
					S135	DSHT		3 3/8	85.7	1 5/8	41.3	10
					S135	API		3 3/8	85.7	1 3/4	44.5	10
2 7/8	10.40	0.362	2.151	EU	X95	DSHT	NC31 2-7/8IF	4 1/8	104.8	1 49/65	44.6	10.5
					X95	API		4 1/8	104.8	2	50.8	10.5
					G105	DSHT		4 1/8	104.8	1 49/65	44.6	10.5
					G105	API		4 1/8	104.8	2	50.8	10.5
					S135	DSHT		4 3/8	111.1	1 49/65	44.6	10.5
					S135	API		4 3/8	111.1	1 5/8	41.3	10.5
3 1/2	13.30	0.368	2.764	EU	X95	DSHT	NC38 3-1/2IF	5	127	2 7/16	61.9	12
					X95	API		5	127	2 9/16	65.1	12
					G105	DSHT		5	127	2 7/16	61.9	12
					G105	API		5	127	2 7/16	61.9	12
					S135	DSHT		5	127	2 17/60	58.0	12
					S135	DSHT		5	127	2 17/83	56.0	12
					S135	API		5	127	2 1/8	54.0	12
					S135	API		5	127	2 1/8	54.0	12
3 1/2	15.50	0.449	2.602	EU	X95	DSHT	NC38 3-1/2IF	5	127	2 7/16	61.9	12
					X95	API		5	127	2 7/16	61.9	12
					G105	DSHT		5	127	2 25/69	60.0	12
					G105	API		5	127	2 1/8	54.0	12
3 1/2	15.50	0.449	2.602	EU	S135	DSHT	NC40	5 1/2	139.7	2 15/34	62.0	11.5
					S135	API		5 1/2	139.7	2 1/4	57.2	11.5
4	14.00	0.330	3.340	IU	X95	DSHT	NC40	5 1/4	133.4	2 15/34	62.0	11.5
					X95	API		5 1/4	133.4	2 11/16	68.3	11.5
					G105	DSHT		5 1/2	139.7	2 15/34	62.0	11.5
					G105	API		5 1/2	139.7	2 7/16	61.9	11.5
					S135	DSHT		5 1/2	139.7	2 15/34	62.0	11.5
					S135	API		5 1/2	139.7	2	50.8	11.5
4	14.00	0.330	3.340	EU	S135	DSHT	NC46	6	152.4	3	76.2	11.5
					S135	API		6	152.4	3	76.2	11.5
4 1/2	16.60	0.337	3.826	EU	G105	DSHT	NC46	6 1/4	158.8	3	76.2	11.5
					G105	API		6 1/4	158.8	3	76.2	11.5
					S135	DSHT		6 1/4	158.8	3	76.2	11.5
					S135	API		6 1/4	158.8	2 3/4	69.9	11.5
4 1/2	16.60	0.337	3.826	EU	S135	DSHT	NC50	6 5/8	168.3	3 17/52	84.5	11.5
					S135	API		6 5/8	168.3	3 1/2	88.9	11.5
4 1/2	20.00	0.430	3.640	EU	G105	DSHT	NC50	6 5/8	168.3	3 17/52	84.5	11.5
					G105	API		6 5/8	168.3	3 1/2	88.9	11.5
					S135	DSHT		6 5/8	168.3	3 1/4	82.6	11.5
					S135	API		6 5/8	168.3	3	76.2	11.5

				MECHANICAL PROPERTIES						
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	in	in	in	lbs	psi	psi	ft-lbs	ft-lbs		ft-lbs
7	8	15	2 9/16	175,000	21,280	19,760	7,920	10,251	1.29	6,150
7	8	15	2 9/16	175,000	21,280	19,760	7,920	6,875	0.87	4,130
7	8	15	2 9/16	194,000	23,520	21,840	8,750	10,251	1.17	6,150
7	8	15	2 9/16	194,000	23,520	21,840	8,750	6,875	0.79	4,130
7	8	15	2 9/16	249,000	30,240	28,080	11,250	10,251	0.91	6,150
7	8	15	2 9/16	249,000	30,240	28,080	11,250	6,875	0.61	4,130
7	9	16	3 3/16	272,000	22,730	20,910	14,640	21,773	1.49	13,060
7	9	16	3 3/16	272,000	22,730	20,910	14,640	13,196	0.90	7,920
7	9	16	3 3/16	300,000	25,120	23,110	16,180	21,773	1.35	13,060
7	9	16	3 3/16	300,000	25,120	23,110	16,180	13,196	0.82	7,920
7	9	16	3 3/16	386,000	32,300	29,720	20,800	23,510	1.13	14,110
7	9	16	3 3/16	386,000	32,300	29,720	20,800	16,946	0.81	10,170
8	10.5	18.5	3 7/8	344,000	18,980	17,880	23,500	31,372	1.33	18,820
8	10.5	18.5	3 7/8	344,000	18,980	17,880	23,500	20,327	0.86	12,200
8	10.5	18.5	3 7/8	380,000	20,980	19,760	25,970	31,372	1.21	18,820
8	10.5	18.5	3 7/8	380,000	20,980	19,760	25,970	22,213	0.86	13,330
8	10.5	18.5	3 7/8	489,000	26,970	25,400	33,390	35,761	1.07	21,460
8	10.5	18.5	3 7/8	489,000	26,970	25,400	33,390	37,894	1.13	22,740
8	10.5	18.5	3 7/8	489,000	26,970	25,400	33,390	26,516	0.79	15,910
8	10.5	18.5	3 7/8	409,000	23,160	21,250	26,710	31,372	1.17	18,820
8	10.5	18.5	3 7/8	409,000	23,160	21,250	26,710	22,213	0.83	13,330
8	10.5	18.5	3 7/8	452,000	25,590	23,480	29,520	33,553	1.14	20,130
8	10.5	18.5	3 7/8	452,000	25,590	23,480	29,520	26,516	0.90	15,910
7	10	17	3 7/8	581,000	32,910	30,190	37,950	43,374	1.14	26,020
7	10	17	3 7/8	581,000	32,910	30,190	37,950	32,944	0.87	19,770
7	10	17	4 3/16	361,000	14,890	14,380	29,500	42,509	1.44	25,510
7	10	17	4 3/16	361,000	14,890	14,380	29,500	25,673	0.87	15,400
7	10	17	4 3/16	400,000	16,460	15,900	32,600	43,374	1.33	26,020
7	10	17	4 3/16	400,000	16,460	15,900	32,600	30,114	0.92	18,070
7	10	17	4 3/16	514,000	21,160	20,140	41,920	43,374	1.03	26,020
7	10	17	4 3/16	514,000	21,160	20,140	41,920	36,363	0.87	21,820
7	10	17	4 1/2	514,000	21,160	20,140	41,920	56,701	1.35	34,020
7	10	17	4 1/2	514,000	21,160	20,140	41,920	39,230	0.94	23,540
7	10	17	4 11/16	463,000	14,940	13,820	43,130	57,322	1.33	34,390
7	10	17	4 11/16	463,000	14,940	13,820	43,130	39,659	0.92	23,800
7	10	17	4 11/16	595,000	19,210	16,770	55,450	57,322	1.03	34,390
7	10	17	4 11/16	595,000	19,210	16,770	55,450	44,872	0.81	26,920
7	10	17	5	595,000	19,210	16,770	55,450	72,586	1.31	43,550
7	10	17	5	595,000	19,210	16,770	55,450	45,128	0.81	27,080
7	10	17	5	577,000	19,060	18,150	51,660	72,586	1.41	43,550
7	10	17	5	577,000	19,060	18,150	51,660	45,128	0.87	27,080
7	10	17	5	742,000	24,510	23,330	66,420	76,524	1.15	45,910
7	10	17	5	742,000	24,510	23,330	66,420	57,801	0.87	34,680

DSHT Tool Joint / API Tool Joint Mechanical Properties

DRILL PIPE						TOOL JOINT						
Outside Dia. Of Pipe (OD)	Wall Thickness of Pipe (WT)		Inside Dia. Of Pipe (ID)	UPSET END	Grade	Connection Number or Size	API or DSHT	Outside Dia. Of Pin and Box (D)		Inside Dia. Of PIN (d)		Total Length ToolJoint Pin (Lp)
	in	Weight Designation						in	in	in	mm	
5	19.50	0.362	4.276	IEU	X95	DSHT	NC50	6 5/8	168.3	3 17/52	84.5	11.5
					X95	API		6 5/8	168.3	3 1/2	88.9	11.5
					G105	DSHT		6 5/8	168.3	3 17/52	84.5	11.5
					G105	DSHT		6 5/8	168.3	3 1/4	82.6	11.5
					G105	API		6 5/8	168.3	3 1/4	82.6	11.5
					S135	DSHT		6 5/8	168.3	3 1/4	82.6	11.5
					S135	DSHT		6 5/8	168.3	3 3/20	80.0	11.5
					S135	API		6 5/8	168.3	2 3/4	69.9	11.5
5	25.60	0.500	4.000	IEU	X95	DSHT	NC50	6 5/8	168.3	3 1/4	82.6	11.5
					X95	API		6 5/8	168.3	3	76.2	11.5
					G105	DSHT		6 5/8	168.3	3 1/4	82.6	11.5
					G105	API		6 5/8	168.3	2 3/4	69.9	11.5
5	19.50	0.362	4.276	IEU	G105	DSHT	5 1/2FH	7	177.8	3 3/4	95.3	13
					G105	API		7	177.8	3 3/4	95.3	13
					S135	DSHT		7 1/4	184.2	3 3/4	95.3	13
					S135	API		7 1/4	184.2	3 1/2	88.9	13
5	25.60	0.500	4.000	IEU	G105	DSHT	5 1/2FH	7 1/4	184.2	3 3/4	95.3	13
					G105	API		7 1/4	184.2	3 1/2	88.9	13
					S135	DSHT		7 1/4	184.2	3 1/2	88.9	13
					S135	API		7 1/4	184.2	3 1/4	82.6	13
5 1/2	21.90	0.361	4.778	IEU	X95	DSHT	5 1/2FH	7	177.8	3 3/4	95.3	13
					X95	API		7	177.8	3 3/4	95.3	13
					G105	DSHT		7 1/4	184.2	3 3/4	95.3	13
					G105	API		7 1/4	184.2	3 1/2	88.9	13
					S135	DSHT		7 1/2	190.5	3 3/4	95.3	13
					S135	API		7 1/2	190.5	3	76.2	13
5 1/2	24.70	0.415	4.670	IEU	G105	DSHT	5 1/2FH	7 1/4	184.2	3 3/4	95.3	13
					G105	API		7 1/4	184.2	3 1/2	88.9	13
					S135	DSHT		7 1/2	190.5	3 1/2	88.9	13
					S135	API		7 1/2	190.5	3	76.2	13
6 5/8	25.20	0.330	5.965	IEU	G105	DSHT	6 5/8FH	8 1/4	209.6	4 3/4	120.7	13
					G105	API		8 1/4	209.6	4 3/4	120.7	13
					S135	DSHT		8 1/2	215.9	4 21/43	114.0	13
					S135	API		8 1/2	215.9	4 1/4	108.0	13
6 5/8	27.70	0.362	5.901	IEU	G105	DSHT	6 5/8FH	8 1/4	209.6	4 3/4	120.7	13
					G105	API		8 1/4	209.6	4 3/4	120.7	13
					S135	DSHT		8 1/2	215.9	4 21/43	114.0	13
					S135	API		8 1/2	215.9	4 1/4	108.0	13

				MECHANICAL PROPERTIES						
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	in	in	in	lbs	psi	psi	ft-lbs	ft-lbs		ft-lbs
7	10	17	5 1/8	501,000	13,070	12,020	52,140	72,586	1.39	43,550
7	10	17	5 1/8	501,000	13,070	12,020	52,140	45,128	0.87	27,080
7	10	17	5 1/8	554,000	14,440	13,000	57,630	72,586	1.26	43,550
7	10	17	5 1/8	554,000	14,440	13,000	57,630	76,524	1.33	45,910
7	10	17	5 1/8	554,000	14,440	13,000	57,630	51,708	0.90	31,020
7	10	17	5 1/8	712,000	18,570	15,670	74,100	76,424	1.03	45,850
7	10	17	5 1/8	712,000	18,570	15,670	74,100	81,535	1.10	48,920
7	10	17	5 1/8	712,000	18,570	15,670	74,100	63,364	0.86	38,020
7	10	17	5 1/8	672,000	18,050	17,100	66,190	76,424	1.15	45,850
7	10	17	5 1/8	672,000	18,050	17,100	66,190	57,801	0.87	34,680
7	10	17	5 1/8	742,000	19,950	18,900	73,160	76,424	1.04	45,850
7	10	17	5 1/8	742,000	19,950	18,900	73,160	63,407	0.87	38,040
8	10	18	5 1/8	554,000	14,440	13,000	57,630	90,771	1.58	54,460
8	10	18	5 1/8	554,000	14,440	13,000	57,630	62,903	1.09	37,740
8	10	18	5 1/8	712,000	18,570	15,670	74,100	92,735	1.25	55,640
8	10	18	5 1/8	712,000	18,570	15,670	74,100	72,484	0.98	43,490
8	10	18	5 1/8	742,000	19,950	18,900	73,160	92,735	1.27	55,640
8	10	18	5 1/8	742,000	19,950	18,900	73,160	72,484	0.99	43,490
8	10	18	5 1/8	954,000	25,650	24,300	94,060	108,358	1.15	65,020
8	10	18	5 1/8	954,000	25,650	24,300	94,060	78,716	0.84	47,230
8	10	18	5 11/16	554,000	11,850	10,020	64,230	90,771	1.41	54,460
8	10	18	5 11/16	554,000	11,850	10,020	64,230	62,903	0.98	37,740
8	10	18	5 11/16	612,000	13,090	10,500	70,990	92,735	1.31	55,640
8	10	18	5 11/16	612,000	13,090	10,500	70,990	72,484	1.02	43,490
8	10	18	5 11/16	787,000	16,840	12,670	91,280	93,587	1.03	56,150
8	10	18	5 11/16	787,000	16,840	12,670	91,280	87,171	0.95	52,300
8	10	18	5 11/16	696,000	15,050	14,010	79,200	92,735	1.17	55,640
8	10	18	5 11/16	696,000	15,050	14,010	79,200	72,484	0.92	43,490
8	10	18	5 11/16	895,000	19,350	17,020	101,830	109,354	1.07	65,610
8	10	18	5 11/16	895,000	19,350	17,020	101,830	87,171	0.86	52,300
8	11	19	6 15/16	685,000	9,940	5,500	98,810	124,672	1.26	74,800
8	11	19	6 15/16	685,000	9,940	5,500	98,810	86,238	0.87	51,740
8	11	19	6 15/16	881,000	12,780	6,040	127,050	149,639	1.18	89,780
8	11	19	6 15/16	881,000	12,780	6,040	127,050	109,227	0.86	65,540
8	11	19	6 15/16	748,000	10,900	7,100	106,810	124,672	1.17	74,800
8	11	19	6 15/16	748,000	10,900	7,100	106,810	86,238	0.81	51,740
8	11	19	6 15/16	962,000	14,020	7,810	137,330	149,639	1.09	89,780
8	11	19	6 15/16	962,000	14,020	7,810	137,330	109,227	0.80	65,540