

				DS-1 Spec			Equivalent to Root Radius				
				Pin	Box		Pin		Box		
				Attachment	11071-250-GP 11072-A-XXX-GP	11070-XXX-GP	11069-XXX-GP	11071-XXX-GP 11072-A-XXX-GP	11070-XXX-GP	11069-XXX-GP	
API	Pin/Box	Radius	TPI	Wheel Item #	Wheel Item #	Wheel Item #	Wheel Item #	CR #	Wheel Item #	Wheel Item #	CR#
Regular Connections (REG)	2 3/8	0.020	5	F50.022X2	N/A	N/A	F50.020X2	CR60	N/A	N/A	CR20
	2 7/8	0.020	5	F50.022X2	N/A	N/A	F50.020X2	CR60	N/A	N/A	CR20
	3 1/2	0.020	5	F50.022X2	N/A	F38.022X2	F50.020X2	CR60	N/A	F38.020X2	CR20
	4 1/2	0.020	5	F50.022X2	F38.022X2	F38.022X2	F50.020X2	CR60	F38.020X2	F38.020X2	CR20
	5 1/2	0.025	4 ExTH	F50.027X2	F38.027X2	N/A	F50.025X2	CR70	F38.025X2	N/A	CR30
	6 5/8	0.025	4 ExTH	F50.027X2	F38.027X2	N/A	F50.025X2	CR70	F38.025X2	N/A	CR30
	7 5/8	0.025	4 ExTH	F50.027X2	F38.027X2	N/A	F50.025X2	CR70	F38.025X2	N/A	CR30
	8 5/8	0.025	4 ExTH	F50.027X2	F38.027X2	N/A	F50.025X2	CR70	F38.025X2	N/A	CR30
Internal Flush (IF)	2 3/8	0.038	4	F50.042X2	N/A	N/A	F50.038X2	CR50	N/A	N/A	CR10
	2 7/8	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	3 1/2	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	4	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	4 1/2	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	5 1/2	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	6 5/8	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
Full Hole (FH)	3 1/2	0.020	5	F50.022X2	N/A	F38.022X2	F50.020X2	CR60	N/A	F38.020X2	CR20
	4	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.042X2	CR10
	4 1/2	0.020	5	F50.022X2	F38.022X2	F38.022X2	F50.020X2	CR60	F38.020X2	F38.020X2	CR20
	5 1/2	0.025	4 ExTH	F50.027X2	F38.027X2	N/A	F50.025X2	CR70	F38.025X2	N/A	CR30
	6 5/8	0.025	4 ExTH	F50.027X2	F38.027X2	N/A	F50.025X2	CR70	F38.025X2	N/A	CR30
Hughes Xtra Hole (X Hole)	2 7/8	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	3 1/2	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	4 1/2	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	5	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
Hughes Slim Hole (Slim Hole)	2 3/8	SPL	4	F50.---X1	N/A	N/A	F50.---X1	CRXX	N/A	N/A	CRXX
	2 7/8	SPL	4	F50.---X1	N/A	F38.---X1	F50.---X1	CRXX	N/A	F38.---X1	CRXX
	3 1/2	SPL	4	F50.---X1	F38.---X1	F38.---X1	F50.---X1	CRXX	F38.---X1	F38.---X1	CRXX
	4	SPL	4	F50.---X1	F38.---X1	F38.---X1	F50.---X1	CRXX	F38.---X1	F38.---X1	CRXX
	4 1/2	SPL	4	F50.---X1	F38.---X1	N/A	F50.---X1	CRXX	F38.---X1	N/A	CRXX
Hughes Double Streamline (DBL STR)	3 1/2	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	4	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	4 1/2	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	5 1/2	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
API Connections	No. 23	0.038	4	F50.042X2	N/A	N/A	F50.038X2	CR50	N/A	N/A	CR10
	No. 26	0.038	4	F50.042X2	N/A	N/A	F50.038X2	CR50	N/A	N/A	CR10
	No. 31	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	No. 35	0.038	4	F50.042X2	N/A	F38.042X2	F50.038X2	CR50	N/A	F38.038X2	CR10
	No.38	0.038	4	F50.042X2	F38.042X2	F38.042X2	F50.038X2	CR50	F38.038X2	F38.038X2	CR10
	No. 40	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	No. 44	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	No. 46	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	No. 50	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	No. 56	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	No. 61	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
	No. 70	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10
No. 77	0.038	4	F50.042X2	F38.042X2	N/A	F50.038X2	CR50	F38.038X2	N/A	CR10	
Hughes H-90	3 1/2	.034/.031	3.5	F50.031X2	N/A	F38BRX2	F50.031X2	CR80	N/A	F38BRX2	CR40
	4	.034/.031	3.5	F50.031X2	N/A	F38BRX2	F50.031X2	CR80	N/A	F38BRX2	CR40
	4 1/2	.034/.031	3.5	F50.031X2	F38BRX2	N/A	F50.031X2	CR80	F38BRX2	N/A	CR40
	5	.034/.031	3.5	F50.031X2	F38BRX2	N/A	F50.031X2	CR80	F38BRX2	N/A	CR40
	5 1/2	.034/.031	3.5	F50.031X2	F38BRX2	N/A	F50.031X2	CR80	F38BRX2	N/A	CR40
	6 5/8	.034/.031	3.5	F50.031X2	F38BRX2	N/A	F50.031X2	CR80	F38BRX2	N/A	CR40
	7	.034/.031	3.5	F50.031X2	F38BRX2	N/A	F50.031X2	CR80	F38BRX2	N/A	CR40
	7 5/8	.034/.031	3.5	F50.031X2	F38BRX2	N/A	F50.031X2	CR80	F38BRX2	N/A	CR40
8 5/8	.034/.031	3.5	F50.031X2	F38BRX2	N/A	F50.031X2	CR80	F38BRX2	N/A	CR40	