

## Reference Guide

### Elevator Selection Guide for all Varco BJ Air Operated and Manual Elevators

REFERENCE	REFERENCE DESCRIPTION
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# 1 ELEVATOR REFERENCE GUIDE

## 1.1 Table Key

- G-SERIES 18° Center Latch Elevators**
- Y-SERIES Slip Type Elevators**
- X-SERIES Collar Type, Side Door Elevators**
- A-SERIES Collar Type, Center Latch Elevators**
- S-SERIES Auxiliary Elevators**

## 1.2 Reference Table

		Ratings, tons													
Size, in.		5	8	35	40	65	75	100	125	150	200	250	350	500	
Drill Pipe	2 3/8"	SJH						MG		RGG					
	2 7/8"	SJH						MG		RGG	RGA				
	3 1/2"	SJH									RGG	RGA	MGG	GA	
		SPL								SMX					
	4"	SJH												GG	
		SPL							MG		SMX	RGA	MGG	GA	HGG
	4 1/2"	SJH												GG	
		SPL							MG		SMX	RGA	MGG	GA	HGG
	5"	SJH												GG	
		SPL							MG		SMX		MGG	GA	HGG
	5 1/2"	SJH												GG	
		SPL									SMX		MGG	GA	HGG
	5 7/8"	SJH												GG	
		SPL												GA	HGG
6 5/8"	SJH												GG		
	SPL									SMX		SMX	GA	HGG	
7"	SJH												GA		
	SPL									SMX		SMX	GGA		
7 5/8"	SJH									SMX		SMX	GGA		
Drill Collars	2 1/2"	SJH		TA		TA		TMA							
						SLX		SLX							
	2 3/4"	SJH		TA			TA		TMA						
						SLX		SLX							
	3"	SJH						TMA							
	3 1/8"	SJH						TMA							
	3 1/4"	SJH						TMA							
3 1/2"	SJH					TA		TMA		SMX					
								SLX							
3 3/4"	SJH					TA		TMA		SMX					
								SLX							

		Ratings, tons													
	Size, in.	5	8	35	40	65	75	100	125	150	200	250	350	500	
Drill Collars	4"	SJH					TA	TMA							
								SLX							
	4 1/8"	SJH				TA		TMA							
	4 1/4"	SJH				TA		TMA							
	4 1/2"	SJH					TA		TMA		TA				
									SLX		SMX				
	4 3/4"	SJH							TA		TA				
									TMA		SMX				
	5"	SJH							TA		TA				
									TMA		SMX				
	5 1/4"	SJH							TA		TA				
									SLX		SMX				
	5 1/2"	SJH							TA		TA				
									SLX		SMX				
	5 3/4"	SJH							TA		TA				
									SLX		SMX				
	6"	SJH							TA		TA			SMX	
									SLX		SMX				
	6 1/4"	SJH							TA		TA			SMX	
									SLX		SMX				
6 3/8"	SJH							TA		TA			SMX		
								SLX		SMX					
6 1/2"	SJH							TA		TA			SMX		
								SLX		SMX					
6 3/4"	SJH							TA		TA			SSD		
								SLX		SMX			SMX		
7"	SJH							TA		TA			SSD		
								SLX		SMX			SMX		
7 1/4"	SJH							TA		TA			SSD		
								SLX		SMX			SMX		
7 1/2"	SJH							TA		TA			SSD		
								SLX		SMX			SMX		
7 3/4"	SJH							TA		TA			SMX		
								SLX		SMX					

		Ratings, tons												
Size, in.		5	8	35	40	65	75	100	125	150	200	250	350	500
Drill Collars	8"	SJH						TA		TA SLX SMX		SMX		
	8 1/4"	SJH						TA		TA SLX SMX		SMX		
	8 1/2"	SJH						TA		TA SLX SMX		SMX		
	8 3/4"	SJH								TA SMX		SSD SMX		
	9"	SJH								TA SMX		SSD SMX		
	9 1/4"	SJH								TA SMX		SSD	SMX	
	9 1/2"	SJH								TA SMX		SSD	SMX	
	9 3/4"	SJH								TA SLX SMX		SSD	SX SMX	SX
	10"	SJH								TA SLX SMX		SSD	SX SMX	SX
	10 1/2"	SJH								TA SLX SMX		SSD	SX SMX	SX
	10 3/4"	SJH								TA SLX SMX		SSD	SX SMX	SX
	11"									TA SMX			SX SMX	SX
	11 1/4"									TA SMX			SX SMX	SX
	Casing & Tubing	1.050"			TA									
1.315"				TA	MYT		YT							
1.660"				TA	MYT	TA SLX	YT							
1.900"				TA	MYT	TA SLX	YT							
2 3/8"		SJL SPL SJX SJH		TA	MYT	TA SLX	YT	TMA SLX		HYT				

		Ratings, tons													
Size, in.		5	8	35	40	65	75	100	125	150	200	250	350	500	
Casing & Tubing	2 7/8"	SJL		TA	MYT	TA	YT	TMA			HYT	HYC			
		SPL													
		SJX													
		SJH													
	3 1/2"	SJL						YC	TMA			HYT			
		SPL								MYC			HYC		
		SJX						YT	SLX			SMX			
		SJH													
	4"	SJL							TMA						
		SPL						YC		MYC		SMX		HYC	
		SJX							SLX						
		SJH													
	4 1/2"	SJL					TA	YC	TMA		MYC	TA		HYC	
		SPL													
		SJX							SLX			SMX			
		SJH													
	4 3/4"	SJL							TA			TA			
		SPL						YC	TMA		MYC			HYC	
		SJX							SLX			SMX			
		SJH													
	5"	SJL							TA			TA			
		SPL						YC	TMA		MYC			HYC	
		SJX							SLX			SMX			
		SJH													
	5 1/2"	SJL							TA			TA			
		SPL						YC		MYC				HYC	
		SJX							SLX			SMX			
		SJH													
	5 3/4"	SPL										TA			
		SJX						YC	TA		MYC	SLX		HYC	
		SJH										SMX			
	6"	SJL										TA			
		SPL						YC	TA		MYC		HYC		
		SJX										SLX		SMX	
		SJH										SMX			

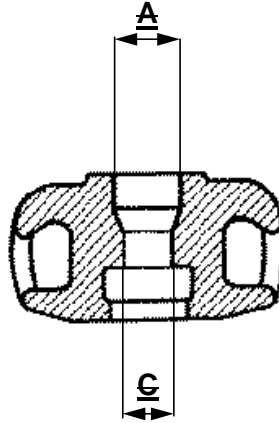
		Ratings, tons													
	Size, in.	5	8	35	40	65	75	100	125	150	200	250	350	500	
Casing & Tubing	6 5/8"	SJL								TA					
		SPL					YC	TA	MYC	SMX	HYC	SSD			
		SJX								SLX		SMX			
		SJH													
	7"	SJL									TA				
		SPL					YC	TA	MYC	SLX	HYC	SSD			
		SJX								SMX		SMX			
		SJH													
	7 5/8"	SJL									TA				
		SPL										HYC	SSD		
		SJX							TA	SLX		SMX			
		SJH								SMX					
	8 5/8"	SJL									TA				
		SPL											SSD		
		SJX								SLX			SMX		
		SJH								SMX					
	9"	SJL									TA				
		SPL											SSD		
		SJX											SMX		
		SJH													
	9 5/8"	SJL									TA			SX	
		SPL											SSD	SX	
		SJX												SMX	
		SJH													
	9 7/8"	SJL									TA			SX	
		SPL											SSD	SX	
		SJX												SMX	
		SJH													
	10"	SJL									TA			SX	
		SJX											SSD	SX	
		SJH												SMX	
	10 1/8"	SJL									TA			SX	
		SJX											SSD	SX	
		SJH												SMX	
	10 3/4"	SJL									TA			SX	
		SPL											SSD	SX	
SJX													SMX		
SJH															



		Ratings, tons													
Size, in.		5	8	35	40	65	75	100	125	150	200	250	350	500	
Casing & Tubing	11 3/4"	SJL								SLX		SSD	SX	SX	
		SLX								SMX		SMX			
		SJC													
	13 3/8"	SJL									SLX		SSD	SX	SX
		SLX									SMX		SMX		
		SJC													
	13 5/8"	SJX											SSD		
		SJC											SMX		
	14"	SJX											SSD		
		SJC											SMX		
	16"	SJL								SLX		SMX		SX	
	18"	SJL										SMX			
	18 5/8"	SJL									SLX		SX		
													SMX		
	20"	SJL								SLX		SX			
	21 1/2"	SJL											SMX		
													SLX		
	22"	SJL											SMX		
													SLX		
	24"	SJL											SMX		
												SLX			
24 1/2"												SMX			
												SLX			
26"										SLX DD					
28"										SLX DD					
30"										SLX DD					

## 2 BORE CHARTS

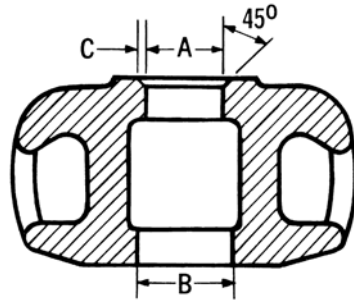
### 2.1 18° Taper Drill Pipe Elevator Bore Chart



Drill pipe			Elevator			Standard	Connection		
Drill pipe Size	Type Upset	Upset	Dimension	Dimension	Bore code		Hydrill Wedge Thread	Grant Prideco	
Max OD		Max. OD	Center bore C (new)	Top bore A (new)	18° taper				
2 3/8"	EU	2 9/16"	2 21/32"	4 1/4"	116	OH	WT 14S, 23, 26	XT 24, 26	
						NC 26 (IF)			HT 26
						SL H90			GPDS 26
						WO			
2 7/8"	EU	3 3/16"	3 9/32"	4 3/4"	118	NC 31(IF)	WT 14S, 31	XT 31	
						OH			HT 31
						SL H90			GPDS 31
						WO			
3 1/2"	IU	3 11/16"	3 25/32"	5 1/2"	119	XH	WT 14S, 31	XT 31	
						NC 31(SH)			HT 31
3 1/2"	EU	3 7/8"	3 31/32"	5 1/2"	120	NC 38(IF)	WT 31, 38	XT 38	
						OH			HT 38
						SL H90			GPDS 38
						WO			
4"	IU	4 3/16"	4 9/32"	6 1/2"	121	NC 40(FH)	WT 31, 38, 39	XT 38, 39	
						SH			HT 38, 40
						H90			GPDS 40

4"	EU	4 1/2"	4 25/32"	6 3/4"	122	NC 46(IF)	WT 40	
						OH		
						WO		
4 1/2"	IU	4 11/16"	4 25/32"	6 3/4"	122	H90	WT 38	
4 1/2"	IEU	4 11/16"	4 25/32"	6 3/4"	122	NC 46(XH)	WT 39, 40	XT 40, 46
						FH		HT 46
						NC 38(SH)		GPDS 46
						H90		
4 1/2"	EU	5" to 5 1/8"	5 1/4"	7 1/8"	123	NC 50(IF)	WT 46	XT 50
						OH		HT 50
						WO		
5"	IEU	5 1/8"	5 1/4"	7 1/8"	123	NC 50(XH)	WT 39, 40, 46, 50	XT 46, 50
								HT 50
								GPDS 50
5"	IEU	5 1/8"	5 1/4"	7 1/2"	756	5 1/2" FH		
5 1/2"	IEU	5 11/16"	5 13/16"	7 7/8"	124	FH	WT 46, 50, 54, 56	XT 54, 57
								HT 55
								GPDS 55
5 7/8"	IEU	6"	6 1/8"	8 1/4"	770			XR
5 1/2"	IEU	6"	6 1/8"	8 1/4"	770		WT 54, 56	XT 57
6 5/8"	IEU	6 3/4"	7 1/32"	8 7/8"	740	FH	WT 56, 66	XT 65
								HT 65
								GPDS 65
5 1/2"	IEU		6.233"	8"	678	IF	Mannesmann	
5 7/8"		6"	6 1/8"	7 7/8"	789			

## 2.2 Drill Collars with Zip Lift Recess Bore Elevator Bore Chart



Drill Collar OD	ZIP OD	Bore Code	Top Bore A	Bevel C	Bottom Bore B
4 1/8"	3 11/16"	177	3 13/16"	1/16"	4 1/4"
4 3/4"	4 1/4"	435	4 3/8"	1/16"	4 7/8"
5 1/4"	4 3/4"	179	4 7/8"	1/16"	5 3/8"
5 1/2"	5"	180	5 1/8"	1/16"	5 5/8"
5 3/4"	5 1/8"	181	5 1/4"	1/16"	5 7/8"
6"	5 3/8"	362	5 1/2"	1/16"	6 1/8"
6 1/4"	5 5/8"	337	5 3/4"	1/16"	6 3/8"
6 1/2"	5 7/8"	373	6"	1/16"	6 5/8"
6 3/4"	6"	387	6 3/16"	3/32"	6 7/8"
7"	6 1/4"	361	6 7/16"	3/32"	7 1/8"
7 1/4"	6 1/2"	357	6 11/16"	3/32"	7 3/8"
7 1/2"	6 3/4"	188	6 15/16"	3/32"	7 5/8"
7 3/4:	7"	339	7 3/16"	3/32"	7 7/8"
8"	7 1/4"	336	7 7/16"	3/32"	8 1/8"
8 1/4"	7 1/2"	422	7 11/16"	3/32"	8 3/8"
8 1/2"	7 3/4"	426	7 15/16"	3/32"	8 5/8"
9"	8 1/8"	427	8 3/8"	1/8"	9 1/8"
9 1/2"	8 5/8"	370	8 7/8"	1/8"	9 5/8"
9 3/4"	8 7/8"	367	9 1/8"	1/8"	9 7/8"
10"	9 1/8"	195	9 3/8"	1/8"	10 1/8"
10 3/4"	9 7/8"	527	10 1/8"	3/32"	10 7/8"
11"	10 1/8"	419	10 3/8"	1/8"	11 1/8"
11 1/4"	10 3/8"	196	10 5/8"	1/8"	11 3/8"

### 2.3 Plain Drill Collars with Lift Plugs Elevator Bore Chart

Drill Collar OD	Bore Code	Top Bore A	Bevel C	Bottom Bore B
2 1/2"	201	2 21/32"	1/16"	2 21/32"
2 3/4"	203	2 29/32"	1/16"	2 29/32"
3"	205	3 5/32"	1/16"	3 5/32"
3 1/8"	206	3 9/32"	1/16"	3 9/32"
3 1/4"	207	3 13/32"	1/16"	3 13/32"
3 1/2"	209	3 21/32"	1/16"	3 21/32"
3 3/4"	211	3 29/32"	1/16"	3 29/32"
4"	213	4 5/32"	1/16"	4 5/32"
4 1/8"	519	4 9/32"	1/16"	4 9/32"
4 1/4"	548	4 13/32"	1/16"	4 13/32"
4 1/2"	215	4 21/32"	1/16"	4 21/32"
4 3/4"	354	4 15/16"	1/16"	4 15/16"
5"	552	5 3/16"	1/16"	5 3/16"
5 1/4"	219	5 7/16"	1/16"	5 7/16"
5 1/2"	411	5 11/16"	1/16"	5 11/16"
5 3/4"	222	5 31/32"	1/16"	5 31/32"
6"	349	6 7/32"	1/16"	6 7/32"
6 1/4"	348	6 15/32"	1/16"	6 15/32"
6 3/8"	331	6 19/32"	1/16"	6 19/32"
6 1/2"	135	6 23/32"	1/16"	6 23/32"
6 3/4"	338	7"	1/16"	7"
7"	372	7 1/4"	1/16"	7 1/4"
7 1/4"	335	7 1/2"	1/16"	7 1/2"
7 1/2"	137	7 3/4"	1/16"	7 3/4"
7"	550	8"	1/16"	8"
8"	334	8 1/4"	1/16"	8 1/4"
8 1/4"	347	8 1/2"	1/16"	8 1/2"
8 1/2"	580	8 25/32"	1/16"	8 25/32"
8 3/4"	226	9 1/32"	1/16"	9 1/32"
9"	356	9 9/32"	1/16"	9 9/32"
9 1/4"	227	9 17/32"	1/16"	9 17/32"
9 1/2"	346	9 25/32"	1/16"	9 25/32"
10"	228	10 11/32"	1/16"	10 11/32"
10 1/2"	229	10 27/32"	1/16"	10 27/32"
11"	230	11 11/32"	1/16"	11 11/32"

## 2.4 Collar Tubing Elevator Bore Chart

Tubing Size	Style	Bore Code	Top Bore A	Bottom Bore B
1.050"	Plain	150	1.125"	1.125"
	Upset Tubing	151	1.422"	1.422"
1.315"	Plain	152	1.390"	1.390"
	Upset Tubing	153	1.578"	1.578"
1.660"	Plain	154	1.734"	1.734"
	Upset Tubing	155	1.922"	1.922"
1.900"	Plain	156	1.984"	1.984"
	Upset Tubing	157	2.203"	2.203"
2 <sup>3</sup> / <sub>8</sub> "	Plain	158	2.453"	2.453"
	Upset Tubing	159	2.703"	2.703"
2 <sup>7</sup> / <sub>8</sub> "	Plain	160	2.953"	2.953"
	Upset Tubing	161	3.203"	3.203"
3 <sup>1</sup> / <sub>2</sub> "	Plain	162	3.578"	3.578"
	Upset Tubing	163	3.859"	3.859"
4"	Plain	164	4.078"	4.078"
	Upset Tubing	165	4.359"	4.359"
4 <sup>1</sup> / <sub>2</sub> "	Plain	129	4.594"	4.594"
	Upset Tubing	167	4.859"	4.859"

## 2.5 Casing Elevator Bore Chart

Casing Size	Bore Code	Top Bore A	Bottom Bore B
4 1/2"	129	4 19/32"	4 19/32"
4 3/4"	130	4 27/32"	4 27/32"
5"	131	5 1/8"	5 1/8"
5 1/2"	132	5 5/8"	5 5/8"
5 3/4"	133	5 7/8"	5 7/8"
6"	134	6 1/8"	6 1/8"
6 5/8"	135	6 3/4"	6 3/4"
7"	136	7 1/8"	7 1/8"
7 5/8"	137	7 3/4"	7 3/4"
8 5/8"	139	8 25/32"	8 25/32"
9"	140	9 5/32"	9 5/32"
9 5/8"	141	9 25/32"	9 25/32"
9 7/8"	649	10 1/8"	10 1/8"
10"	831	10.156"	10.156"
10 1/8"	846	10.3"	10.3"
10 3/4"	142	10 15/16"	10 15/16"
11 3/4"	143	11 15/16"	11 15/16"
13 3/8"	144	13 9/16"	13 9/16"
13 5/8"	596	13 13/16"	13 13/16"
14"	690	14 13/64"	14 13/64"
16"	145	16 7/32"	16 7/32"
18"	723	18 1/4"	18 1/4"
18 5/8"	146	18 7/8"	18 7/8"
20"	147	20 9/32"	20 9/32"
21 1/2"	148	21 25/32"	21 25/32"
22"	688	22 9/32"	22 9/32"
24"	630	24 5/16"	24 5/16"
24 1/2"	149	24 13/16"	24 13/16"
26"	650	26 11/32"	26 11/32"
28"	693	28 23/64"	28 23/64"
30"	644	30 3/8"	30 3/8"

## 2.6 Collar Type Drill Pipe

Bore Code	Top Bore A	Bottom Bore B
101	3 <sup>3</sup> / <sub>8</sub> "	3 <sup>1</sup> / <sub>8</sub> "
102	3 <sup>13</sup> / <sub>16</sub> "	3 <sup>3</sup> / <sub>4</sub> "
103	4 <sup>1</sup> / <sub>16</sub> "	3 <sup>3</sup> / <sub>4</sub> "
104	4 <sup>5</sup> / <sub>16</sub> "	4 <sup>1</sup> / <sub>4</sub> "
105	4 <sup>13</sup> / <sub>16</sub> "	4 <sup>3</sup> / <sub>4</sub> "
106	5 <sup>5</sup> / <sub>16</sub> "	5 <sup>1</sup> / <sub>4</sub> "
107	5 <sup>7</sup> / <sub>8</sub> "	5 <sup>13</sup> / <sub>16</sub> "
108	3 <sup>1</sup> / <sub>8</sub> "	3 <sup>1</sup> / <sub>8</sub> "
109	2 <sup>5</sup> / <sub>8</sub> "	2 <sup>5</sup> / <sub>8</sub> "
110	2 <sup>3</sup> / <sub>4</sub> "	2 <sup>3</sup> / <sub>4</sub> "
111	3 <sup>1</sup> / <sub>2</sub> "	3 <sup>1</sup> / <sub>2</sub> "
112	3 <sup>1</sup> / <sub>16</sub> "	3 <sup>1</sup> / <sub>16</sub> "
113	5 <sup>11</sup> / <sub>16</sub> "	5 <sup>11</sup> / <sub>16</sub> "
114	6 <sup>1</sup> / <sub>4</sub> "	6 <sup>1</sup> / <sub>4</sub> "
115	2 <sup>13</sup> / <sub>16</sub> "	2 <sup>13</sup> / <sub>16</sub> "