

## Specifications

Size (in./mm)	Grade	Weight Range (lb/ft, kg/m)	Maximum OD (in./mm)	Maximum Drillout ID (in./mm)	Overall Length (in./mm)	Hydraulic Sleeve ID (in./mm)	Closing Seat ID (in./mm)	Opening Pressure <sup>a</sup> (psi/bar)		Safe Load Below Tool (1,000 lb/1,000 kg)		Maximum Pressures (psi/bar)		HNBR Seal Temperature Limits <sup>b</sup> (°F/°C)
					BTC			Per Screw	Range	8 RND	BTC	Internal	External	
4-1/2 114.3	L80	9.5 to 13.5 14.1 to 20.1	5.562 141.3	3.975 101.0	30.5 774.7	2.500 63.5	3.187 80.9	700 48.3	700 to 4,200 48.3 to 289.6	146 66	199 90	8,290 571	7,900 544	350 177
	P110	11.6 to 15.1 17.1 to 22.4		3.885 98.7						237 107	306 138	11,460 790	11,940 823	
5 127.0	L80	11.5 to 15.0 17.1 to 22.4	6.090 154.7	4.445 112.9	31.5 800.1	3.000 76.2	3.750 95.3	600 41.4	1,200 to 3,600 82.8 to 248.2	177 80	233 105	8,010 552	6,730 464	350 177
	P110	15.0 to 18.0 22.3 to 26.8		4.293 109.0						315 142	390 177	10,810 745	10,510 724	
5-1/2 139.7	L80	14.0 to 17.0 20.8 to 25.3	6.625 168.3	4.897 124.4	31.5 800.1	3.000 76.2	4.062 103.2	440 30.3	880 to 3,520 60.6 to 242.7	218 98	278 126	7,040 485	6,710 462	350 177
	L80	15.5 to 20.0 23.0 to 29.7		4.835 122.8						247 112	305 138	7,950 548	7,580 522	
	P110	17.0 to 23.0 25.3 to 34.2		4.777 121.3						359 162	439 199	11,400 786	10,970 756	
7 177.8	L80	20.0 to 26.0 29.7 to 38.7	8.200 208.3	6.341 161.1	32.5 825.5	3.750 95.3	5.000 127.0	340 23.4	680 to 3,400 46.9 to 234.0	298 135	385 175	5,470 377	5,210 359	350 177
	L80	26.0 to 32.0 38.7 to 47.6		6.161 156.5						398 180	485 220	7,550 520	7,200 496	
	P110			6.161 156.5						540 245	646 293	9,940 685	9,470 653	
7-5/8 193.7	L80	26.4 to 29.7 39.3 to 44.2	8.875 225.4	6.854 174.1	38.4 975.4	4.500 114.3	5.875 149.2	600 41.4	1,200 to 3,600 82.8 to 248.2	384 174	487 221	6,290 433	5,990 413	350 177
	P110	29.7 to 39.0 44.2 to 58.0		6.760 171.7						596 270	724 329	9,580 660	8,850 610	
8-5/8 219.1	L80	24.0 to 32.0 35.7 to 47.6	10.125 257.2	7.982 202.7	39.2 995.7	5.500 139.7	6.625 168.3	700 48.3	1,400 to 4,200 96.6 to 289.6	340 154	460 209	5,420 373	3,980 274	350 177
	P110	40.0 to 44.0 59.5 to 65.5		7.610 193.3						795 361	952 432	7,130 491	6,080 419	
9-5/8 244.5	L80	32.3 to 40.0 48.1 to 59.5	11.125 282.6	8.855 224.9	38.8 985.5	6.125 155.6	7.750 196.9	600 41.4	1,200 to 3,600 82.8 to 248.2	463 210	608 276	5,610 386	5,340 368	350 177
	L80	40.0 to 47.0 59.5 to 70.0		8.689 220.7						582 264	734 333	6,990 482	5,980 412	
	P110	43.5 to 53.5 64.7 to 75.9		8.609 218.7						867 394	1,062 482	9,190 633	7,290 502	
10-3/4 273.1	L80	40.5 to 51.0 67.7 to 75.9	12.312 312.7	9.904 251.6	38.8 985.5	7.250 184.2	8.875 225.4	630 43.4	1,260 to 3,780 86.8 to 260.6	552 250	739 335	5,450 375	3,700 255	350 177
	P110	51.0 to 60.7 75.9 to 90.4		9.704 246.5						959 435	1,214 551	7,510 517	4,170 287	
13-3/8 339.7	L80	61.0 to 72.0 90.8 to 107.2	15.000 381.0	12.375 314.3	38.8 985.5	9.250 235.0	11.000 279.4	500 34.5	1,000 to 3,000 69.0 to 207.0	618 280	1,007 457	4,400 303	2,070 142	350 177
	P110			12.375 314.3						841 382	1,355 615	6,200 427	2,550 175	

<sup>a</sup>The operator, cementer, or a trained Weatherford field technician can easily adjust opening pressure in the field to precisely match well requirements.

<sup>b</sup>Temperature limits are for HNBR seals (standard). Limits for Viton® seals (special request) are 400°F (204°C).