COMMINS
Manufacturing, Inc.
960B Guard Street
Friday Harbor, WA 98250

AutoTight™
Rod Holdown System

Commins AutoTight System 4/14/2005

Table 1a. Rod Capacity, IBC 2003

Nominal Diameter (inches)	Rod [2,3,]				
	Model	Dia. & Thread[5]	Allowable Load Per IBC 2003[4]	Allowable Load Per 1997 UBC[6]	1/8" Defl.[7]
ASTM A307 Grade A Steel Rod[2]					
3/8	R3	3/8"- 18 NC	2,209	2,945	1/8" defl
1/2	R4	1/2"-13 NC	3,928	5,237	Limit
5/8	R5	5/8"-11 NC	6,130	8,173	not
3/4	R6	3/4"-10 NC	8,836	11,781	limiting
7/8	R7	7/8"-9 NC	12,026	16,035	
1	R8	1" - 8 NC	15,708	20,944	Use
1 1/8	R9	1-1/8" -7 NC	19,880	26,507	IBC, CBC
1 1/4	R10	1-1/4" -7 NC	24,540	32,720	or UBC
1 3/8	R11	1-3/8" - 6 NC	29,698	39,597	
1 1/2	R12	1-1/2" - 6 NC	35,343	47,124	Capacity
1 3/4	R14	1-3/4"-5 NC	48,106	64,141	
ASTM A197 B7 (125ksi) High Strength Rod[3]					
3/4	R6HS	3/4"-10 NC	18,408	24,544	17,677
7/8	R7HS	7/8"-9 NC	25,054	33,405	24,106
1	R8HS	1" - 8 NC	32,725	43,633	31,739
1 1/8	R9HS	1-1/8" -7 NC	41,417	55,223	40,176
1 1/4	R10HS	1-1/4" -7 NC	51,125	68,167	49,594
1 3/8	R11HS	1-3/8" - 6 NC	61,871	82,495	60,117
1 1/2	R12HS	1-1/2" - 6 NC	73,631	98,175	71,425
1 3/4	R14HS	1-3/4"-5 NC	100,221	133,628	97,219

Notes

1 Allowable Load Capacitates are in Pounds force (lbf). For SI: 1 inch = 25.4mm., 1 lbf = 4.45N., 1 psi = 6.89 kPa.

2 Standard Strength Rod, with the Prefix "R" conforms to ASTM A307 Grade A Steel, Fu = 60,000 psi. Ft = 20,000 psi

3 High strength rod, denoted by the letter prefix "R" and suffix "HS", conforms to ASTM A193-B7. Fu = 125,000 PSI

4 IBC Rod Tensile value (Allowable Load) calculated from area (Nom. Diameter) X Ft, Ft = 1/3 Fu (AISC 4-3, 9th Ed.)

5 Fastener Standards, Industrial Fasteners Institute, Sixth Edition, Page A30

6 Per 1997 UBC-1612.3.2, Includes 1/3 seismic increase. Also 2001 CBC.

7 Deflection limit of 1/8" of 10' - 0" Rod. When Applicable.