

AVAILABLE MATERIALS

• 304/316 Stainless Steel

FEATURES/ADVANTAGES

- ACI 318 category 1 anchor for cracked or uncracked concrete
- Suitable for resisting seismic design loads
- Required hole diameter equals anchor diameter
- Can be loaded immediately
- Nut and washer assembled to anchor
- Simple to install
- For medium to heavy loads

CONCERNS

- Hole diameter is critical
- Concrete only

APPROVALS/LISTINGS

- ACI 318 Category 1 for cracked concrete
- ICC ESR 2461
- Contact customer service for approvals / listings for state DOT's



ORDER DETAIL											
Anchor Dimensions	Order Code 304 / 316SS	Th [in]	d _。 [in]	h。 [in]	h _{nom} [in]	h _{er} [in]	L [in]	t _{max} [in]	T _{inst} [ft-lbs]	d _e [in]	ws [in]
			10000						Test		
1/2" x 3-3/4"	2312334 / 231233\$	1/2	1/2	3-1/4	2-7/8	2-1/2	3-3/4	1/4	60	9/16	3/4
1/2" × 4-1/2"	2312412 / 231241S	1/2	1/2	3-1/4	2-7/8	2-1/2	4-1/2	1	60	9/16	3/4
1/2" x 5-1/2"	2312512 / 231251S	1/2	1/2	3-1/4	2-7/8	2-1/2	5-1/2	2	60	9/16	3/4
1/2" x 7"	2312700 / 231270S	1/2	1/2	3-1/4	2-7/8	2-1/2	7	3-1/2	60	9/16	3/4
									304/316SS		
5/8" x 4-3/4"	2358434 / 235843S	5/8	5/8	4-1/8	3-3/4	3-1/4	4-3/4	1/4	110 / 96	11/16	15/16
5/8" x 6"	2358600 / 235860S	5/8	5/8	4-1/8	3-3/4	3-1/4	6	1-1/2	110 / 96	11/16	15/16
5/8" x 8-1/2"	2358812 / 235881S	5/8	5/8	4-1/8	3-3/4	3-1/4	8-1/2	4	110 / 96	11/16	15/16
5/8" x 10"	2358100 / 235810S	5/8	5/8	4-1/8	3-3/4	3-1/4	10	5-1/2	110 / 96	11/16	15/16

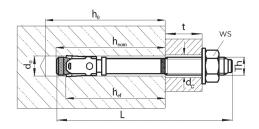
304 Stainless Steel / 316 Stainless steel / Approved for cracked or uncracked concrete / ACI 318, Category 1

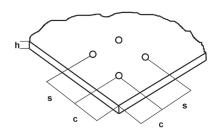




Load & Performance Data	Conc. (psi)	Symbol	Units	1/2"	5/8"
	Cracked Co	oncrete			
Avg.ultimate load,tension	4,000	N_{pn}	lbs	4,447	9,603
Avg. ultimate load, shear	4,000	V_n	lbs	9,615	15,345
Allowable loads, tension ¹	2,500	$N_{\rm allow}$	lbs	1,234	2,187
	4,000	$N_{\rm allow}$	lbs	1,561	2,767
	6,000	$N_{\rm allow}$	lbs	1,912	3,388
	8,500	$N_{\rm allow}$	lbs	2,276	4,033
	Uncracked	Concrete			
Allowable loads, tension ¹	2,500	$N_{\rm allow}$	lbs	1,974	3,088
	4,000	N_{allow}	lbs	2,497	3,906
	6,000	$N_{\rm allow}$	lbs	3,058	4,784
	8,500	$N_{\rm allow}$	lbs	3,640	5,694
	Cracked a	nd Uncracked Concrete			
Allowable loads, shear ¹	2,500	$N_{\rm allow}$	lbs	2,824	4,711
	>4,000	$N_{\rm allow}$	lbs	2,824	5,617
Spacing & Edge Distance					
Effective anchorage depth		h _{ef}	in	21/2	31/4
Critical spacing		S _{ac}	in	16	19 1/2
Critical Edge Distance		C_{ac}	in	8	9 3/4
	Cracked ar	d Uncracked Concrete			
Minimum Spacing for Edge Distance C		S _{a,min} /C	in	21/2/5	3/6
Minimum Edge Distance for Spacing S		C _{a,min} /S	in	3 / 6	31/2/91/2
Minimum thickness of concrete slab		h _{min}	in	5	61/2
Installation Parameters					
Drilled hole diameter		d _o	in	1/2	5/8
Diameter of clearance hole		d_c	in	9/16	11/16
Depth of drilled hole		h _o	in	31/4	4 1/8
Installation torque		T_{inst}	ft-lbs	60	110 / 96
Wrench size		WS	in	3/4	15/16

¹⁾ A safety factor of 1.48 was used to calculate the allowable loads. This is based on a load combination of 30% dead loads and 70% live loads.





INSTALLATION

