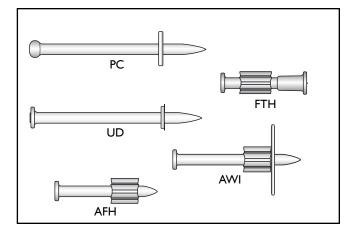


POWDER ACTUATED FASTENING SYSTEM



DESCRIPTION

UCAN powder actuated fasteners are manufactured from high quality spring steel wire. For optimum hardness and toughness, all fasteners are heat treated to a core hardness of RC 50 - 54. To provide protection against corrosion, fasteners are zinc plated to a thickness of minimum 0.0003" (7.5µm).



MECHANICAL PROPERTIES

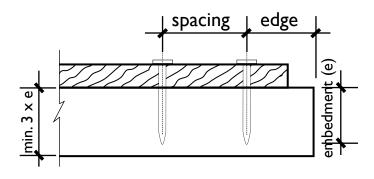
Tensile Strength = 1,800 MPa (269,700 psi) Shear Strength = 1,160 MPa (168,200 psi)

APPLICATION LIMITS FOR FASTENING TO CONCRETE

- I. Do not fasten into cracks or spalled areas
- 2. Concrete thickness > 4" (100 mm)
- 3. Min. distance between fasteners > 3" (75 mm)
- 4. Min. edge distance > 3" (75 mm)
- 5. Shank Diameter = 0.145"
- 6. Other influencing factors are: concrete strength, age of concrete, aggregate size.
- 7. The optimal fastener penetration (e) for maximum holding power in concrete:

1"

- less than 2000 psi I-1/2"
- 2000 psi
- 5000 psi 3/4"



ALLOWABLE WORKING LOADS IN CONCRETE (LBS)

Shank Diameter	Penetration	Concrete Compressive Strength								
		2000 psi		3500 psi		5000 psi				
		Tension	Shear	Tension	Shear	Tension	Shear			
0.145"	 "	110	150	180	180	215	200			
	I-I/4"	128	180	190	200	222	234			
All values shown includes the seferic factors of Orl										

All values shown includes the safety factor of 8:1



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POWDER ACTUATED FASTENING SYSTEM



APPLICATION LIMITS FOR FASTENING TO STEEL

- I. Do not fasten into steel thinner than the shank diameter
- 2. Min. steel thickness = 3/16"
- 3. Min. distance between fasteners > 2" (50 mm)
- 4. Min. edge distance > 1/2" (13 mm)
- 5. Fastener penetration = 3/16" to 1/2"
- 6. Shank Diameter = 0.145"
- 7. Other influencing factors are: steel
- 8. Min. distance from weld > 2'' (50 mm)

edge spacing bedment min. 3/16 incl

Do not fasten into pre drilled holes unless the tool is equipped with an alignment device!

ALLOWABLE WORKING LOADS IN STEEL (LBS)

Shank Diameter	Steel thickness (inch)									
	I/4"		3/8	8''	I/2''					
	Tension	Shear	Tension	Shear	Tension	Shear				
0.145"	453	645	511	705	690	705				
All values shown includes the safety factor of 5:1										

SPECIFICATION

The following sample specification clause is arranged for inclusion in any one of a variety of master specification sections utilizing the Construction Specifications Canada (CSC) format. Square brackets[] indicate alternatives, data required, or need for the specifier to fill in information.

FASTENERS

Fasteners shall be [type and length to suit load and fixture requirements] Ucan Powder Actuated Fasteners, supplied by Ucan Fastening Products. Fasteners shall be manufactured from AISI C1062 steel wire, heat treated to a minimum core hardness of 50RC, and zinc plated to a nominal thickness of 0.0003". Fastener installation shall follow Ucan's installation instructions.