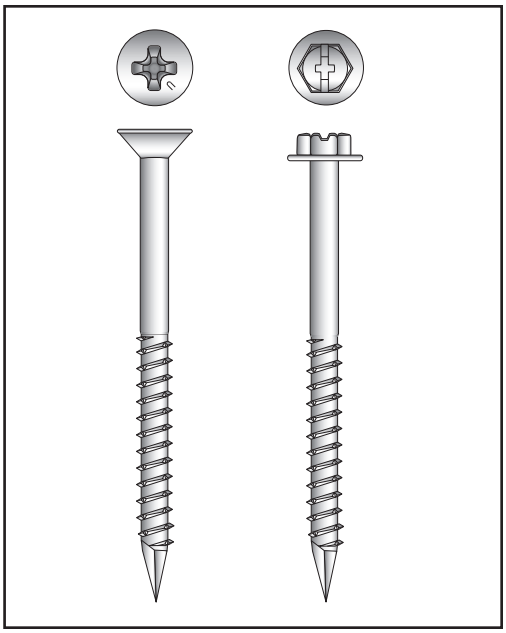
DESCRIPTION

The UCAN Scru-it™ masonry anchor is manufactured to strict specifications from high quality steel. The proprietary, UCAN designed, scalloped thread cuts deep grooves in a wide variety of masonry materials (solid concrete, block, brick etc.) producing up to three times the holding power of comparable anchors.



FEATURES

- High strength
- Close to edge fastening
- No spalling, cuts cleanly into pre-drilled hole
- Fast and easy installation
- Removable
- Diamond point for easy centering
- RUSPRO™ coated for maximum corrosion resistance
- Available in Stainless Steel
- Available head styles (Hex head, Flat head with Phillips and Square socket)
- Available in bulk

TYPICAL APPLICATIONS

- Conduit clips
- Strapping or 2x4 studs
- Metal shelf - uprights
- Cladding
- Window frames
- Brick ties

MATERIAL SPECIFICATIONS

Anchor Body

Carbon Steel: AISI C1022 UTS: 73 ksi (503 MPa)
Case Hardened (HRC: 30 - 42)

Stainless Steel: AISI 410 C UTS: 78 ksi (538 MPa)

CORROSION PROTECTION

Ruspro™ coating:

Multi layer coating provides superior corrosion resistance to sulphur dioxide, salt spray, acids and alkalis as well as having excellent abrasion resistance. Available in blue and silver (Square socket type) colours.

HOURS TO RED RUST *													
	10	20	30	40	50	60	70	100	200	300	400	500	1000
Passivated													
Passivated & Zinc Plated													
Ruspro™													

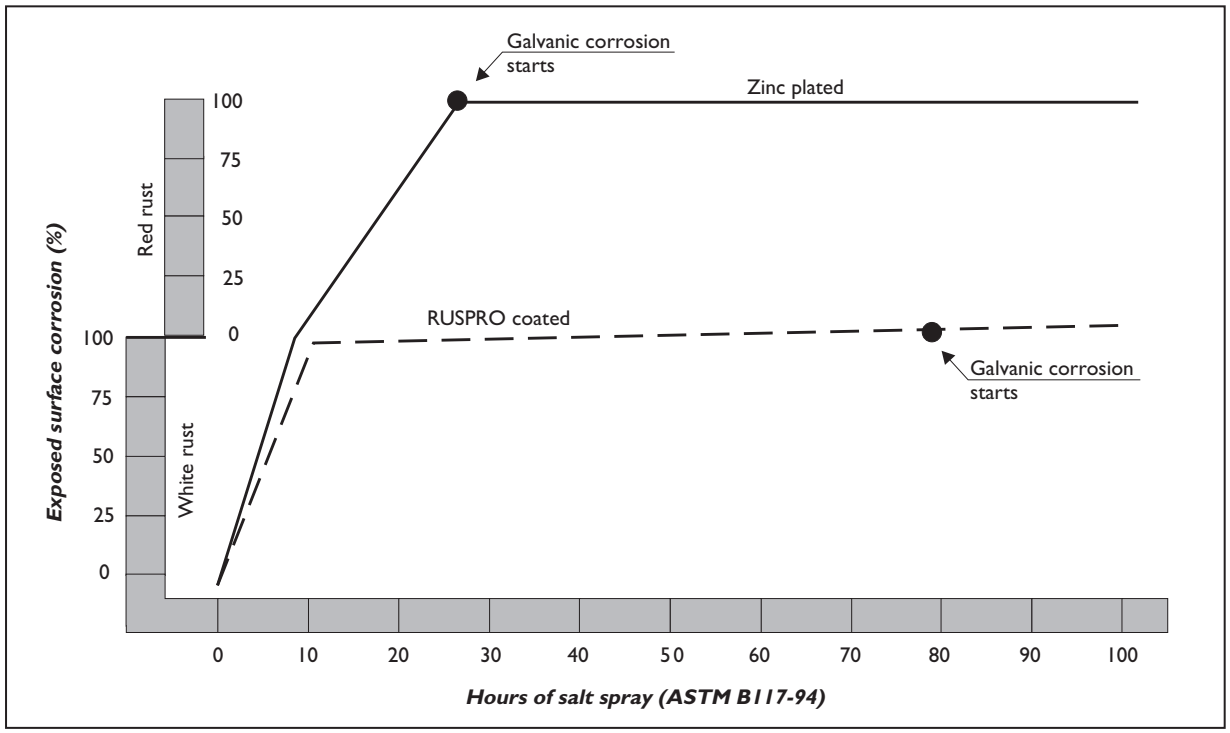
- Per ASTM B117. Test performed on uninstalled fasteners.

DESIGN DATA FOR INSTALLATIONS AFFECTED BY VARIOUS ENVIRONMENTAL CONDITIONS

Reliable fastener design requires fastener performance data in various environmental conditions since the fastening assemblies cannot always be inspected and maintained. UCAN Fastening Products engaged in a comprehensive test program to provide these important data to support correct fastener selection. ORTECH Corporation, an ISO 9002 Canadian Testing Agency performed the following test program:

- Tension and Shear Loading in three different substrates i.e. 30 MPa concrete, concrete hollow and solid block under the following environmental conditions: (see details on page 3)
  - ambient laboratory conditions
  - 100% saturation to simulate exposure of substrate and fastener to rain
  - cold temperature exposure of substrate and fastener at -20°C
- Abrasion resistance testing
- Galvanic corrosion test

Galvanic corrosion test data



Abrasion Resistance Test

RUSPRO™ coated fasteners were installed into hollow concrete block under normal and over-torque conditions. The fasteners were examined under binocular microscope at 7x magnification. After the visual inspection, the specimens were cut to reveal their cross section and were examined metallographically. The test results indicated slight removal of coating at the points of the hex head. None of the specimens displayed damage to the case hardening, indicating the fasteners excellent resistance to abrasion.

Average Ultimate Loads for Installations of 1/4" diameter Scru-it™ in Various Canadian Application Conditions

Hollow Concrete Block

Embedment	Installation Conditions					
	Normal (Ambient)		100% Saturated		Cold (-20°)	
	Tension	Shear	Tension	Shear	Tension	Shear
	lbs	lbs	lbs	lbs	lbs	lbs
	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
1"	767	915	847	700	940	679
	(3.4)	(4.1)	(3.8)	(3.1)	(4.2)	(3.0)
1-1/2"	1,155	762	1,329	551	1,404	886
	(5.1)	(3.4)	(5.9)	(2.5)	(6.3)	(3.9)

Solid Concrete Block

Embedment	Installation Conditions					
	Normal (Ambient)		100% Saturated		Cold (-20°)	
	Tension	Shear	Tension	Shear	Tension	Shear
	lbs	lbs	lbs	lbs	lbs	lbs
	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
1"	1,121	1,349	1,159	1,570	1,077	956
	(5.0)	(6.0)	(5.2)	(7.0)	(4.8)	(4.3)
1-1/2"	2,257	1,056	1,886	1,155	2,004	1,401
	(10.0)	(4.7)	(8.4)	(5.2)	(8.9)	(6.2)

30 MPa Concrete

Embedment	Installation Conditions					
	Normal (Ambient)		100% Saturated		Cold (-20°)	
	Tension	Shear	Tension	Shear	Tension	Shear
	lbs	lbs	lbs	lbs	lbs	lbs
	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
1"	1,521	2,200	1,289	1,452	1,209	946
	(6.8)	(9.8)	(5.7)	(6.5)	(5.4)	(4.2)
1-1/2"	2,444	1,456	2,439	1,575	2,611	1,607
	(10.9)	(6.5)	(10.9)	(7.0)	(11.0)	(7.2)

The above technical data is based on the Ortech test report No.: 96-J53-M0163

TECHNICAL DATA

Screw Size	Embedment	5,000 psi Concrete		Hollow Concrete Block	
		Tension	Shear	Tension	Shear
		lbs	lbs	lbs	lbs
inch	inch	(kN)	(kN)	(kN)	(kN)
3/16	1	1,055 (4.69)	1,181 (5.25)	684 (3.04)	1,248 (5.55)
	1-1/2	2,033 (9.04)	- -	770 (3.42)	- -
1/4	1	1,919 (8.54)	1,932 -	912 (4.06)	2,361 (10.50)
	1-1/2	2,798 (12.45)	- -	1,995 (8.87)	- -

Note: * 1-1/2" embedment is not recommended in extreme hard or dense materials.

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. Brackets [ ] indicate alternatives, data required, or need for the specifier to fill in information.

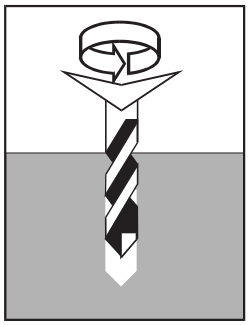
ANCHORS (FASTENERS)

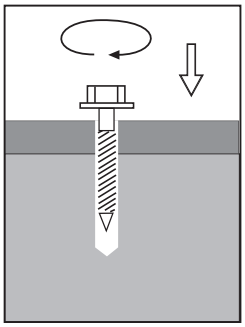
Masonry anchors shall be (diameter, length to suit load and fixture requirements) UCAN SCRU-IT™ Anchors, supplied by Ucan Fastening Products. Anchors to be (type of corrosion protection), and installed according to the manufacturer's published instructions.

ANCHOR SELECTION

Size	Hex Washered Head		Phillips Flat Head		Square Socket Flat Head	Drill Bit
	Blue Ruspro™	Stainless Steel	Blue Ruspro™	Stainless Steel	Silver Ruspro™	(incl.)
3/16 x 3/4	SCH 31634	-	-	-	-	5/32
3/16 x 1-1/4	SCH 316114	-	SCP 316114	SSP 316114	SCR 316114	5/32
3/16 x 1-3/4	SCH 316134	-	SCP316134	-	SCR 316134	5/32
3/16 x 2-1/4	SCH 316214	-	SCP 316214	-	SCR 316214	5-32
3/16 x 2-3/4	SCH 316234	-	SCP 316234	SSP 316234	SCR 316234	5/32
3/16 x 4	SCH 3164	-	SCP 3164	-	-	5/32
1/4 x 1-1/4	SCH 14114	SSH 14114	SCP 14114	-	SCR 14114	3/16
1/4 x 1-3/4	SCH 14134	-	SCP14134	-	SCR 14134	3/16
1/4 x 2-1/4	SCH 14214	-	SCP 14214	-	SCR 14214	3/16
1/4 x 2-3/4	SCH 14234	SSH 14234	SCP 14234	-	SCR 14234	3/16
1/4 x 3-1/4	SCH 14314	-	SCP 14314	-	SCR 14314	3/16
1/4 x 4	SCH 144	-	SCP 144	-	-	3/16
1/4 x 5	SCH 145	-	SCP 145	-	-	3/16
1/4 x 6	-	-	SCP 146	-	-	3/16

INSTALLATION





NOTE:

Apply Sfety Factor to ensure the working load per anchor does not exceed 1/4 of the tablulated ultimate load, under static loading conditions.