

Applications

- Post-installed rebar connections for concrete slab, column or wall extensions
- Heavy-duty anchoring in cracked or uncracked concrete, e.g. for steel beams, columns, manufacturing equipment or ledger angles
- Facade installation, steel and metal construction, installation of railings and safety barriers

What does Safe Set™ mean?

Hilti Safe Set™ Technology eliminates the most load-affecting and time-consuming step in the installation process: cleaning the hole before injection of the adhesive. The system improves reliability because the specified application is being performed on the jobsite just as it has been designed to in the plans.

A small step for engineers. And a giant leap forward for your next design.

Now you can design anchor rod and post-installed rebar connections with more confidence. Inadequately cleaning holes during installation can reduce the performance of conventional chemical anchor systems significantly. Hilti Safe Set™ Technology eliminates this factor almost entirely – in both cracked or uncracked concrete and with anchor rods or post-installed rebar.

Hilti proudly presents the HIT-HY 200 System.



2009 IBC
Compliant Anchor

* Approval pending.

Introducing Hilti Safe Set™ Technology

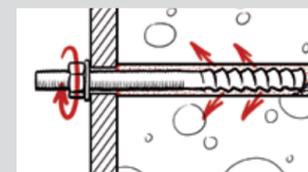
Once in a blue moon, something comes along with the power to change the way you work.

1 No cleaning required. HIT-Z Anchor Rods

The new Hilti HIT-Z Anchor Rod with its cone-shaped helix works as a torque-controlled bonded anchor. This means that because of their shape, HIT-Z Anchor Rods are not affected by uncleaned, hammer-drilled holes in dry or water saturated concrete in base materials above 41°F (5°C) when used with HIT-HY 200. The benefits are clear: fewer steps and extremely high reliability in anchoring applications.



Anchor diameter range	3/8" to 3/4"
Material	Carbon or stainless steel (SS316)
Embedment depth	Up to 12 times rod diameter
Concrete compressive strengths	2,500 psi to 8,500 psi
Installation temperature range	41°F to 104°F (5°C to 40°C)



Safe Set™ Technology

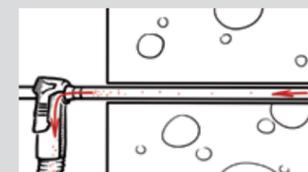


2 Holes that clean themselves. Hollow Drill Bits

Hilti TE-CD and TE-YD Hollow Drill Bits, in conjunction with HIT-HY 200, make subsequent hole cleaning completely unnecessary. Dust is removed by the Hilti VC 20/40 Vacuum System while drilling is in progress for more reliability and a virtually dustless working environment.



Rebar diameter range	#3 to #8
Threaded rod diameters	1/2" to 1"
Embedment depths	Up to 15-1/2"
Concrete compressive strengths	2,500 psi to 8,500 psi
Installation temperature range	14°F to 104°F (-10°C to 40°C)



Safe Set™ Technology



3 The traditional method. Brush and blow

The current industry standard installation method uses compressed air and a wire brush to clean the drill hole. Like all Hilti adhesive anchors, HIT-HY 200 can be installed using the traditional blow-brush-blow method. Because HIT-HY 200 only requires two blows of compressed air, two brushes, and two more blows of compressed air when using the traditional method, it is still faster to install than many other adhesives on the market. The blow-brush-blow cleaning technique maximizes the application range for HIT-HY 200.

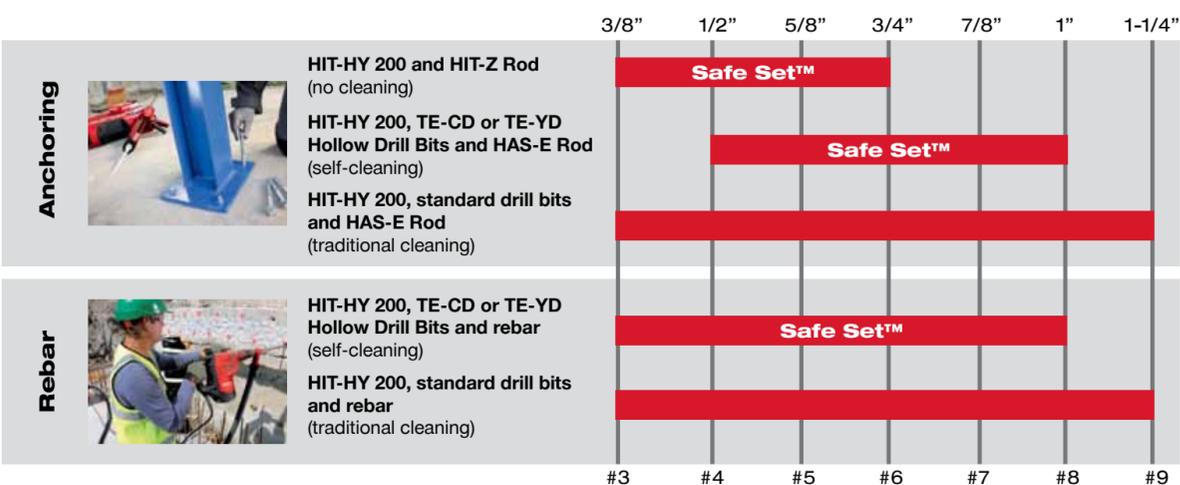


Rebar diameter range	#3 to #10
Threaded rod diameters	3/8" to 1-1/4"
Embedment depth	Up to 20 times element diameter
Concrete compressive strengths	2,500 psi to 8,500 psi
Installation temperature range	14°F to 104°F (-10°C to 40°C)

HIT-HY 200 installation using the traditional method



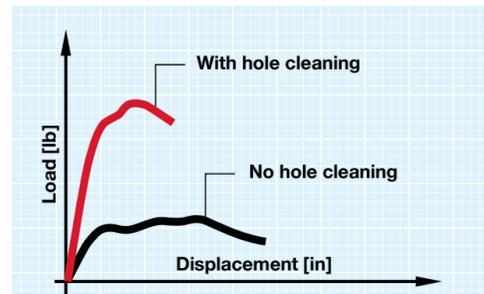
HIT-HY 200 Application Ranges



No cleaning required. Set anchors and rebar reliably.

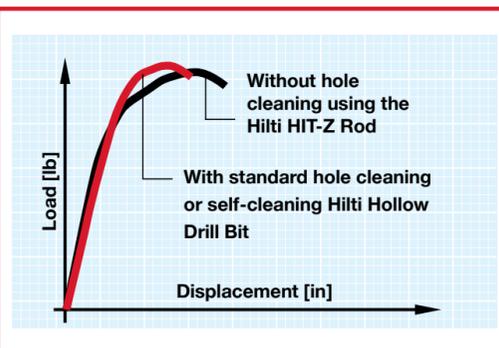
It's no secret that adhesive anchors encounter varying jobsite conditions. Hilti injection technology (HIT) is featured in our lineup of quality products to combat this issue. With Hilti Safe Set™ Technology, which includes either Hollow Drill Bits with the VC 20/40 Vacuum Cleaner or HIT-Z Anchor Rods, we are taking another giant leap forward by removing a step of the installation process entirely.

Potential effects of no hole cleaning



When a threaded rod or rebar is set with conventional injection adhesive, the load it's capable of taking may be very low if the hole is inadequately cleaned after drilling. The Hilti Safe Set™ system eliminates a cleaning step while still providing excellent load values.

Hilti HIT-HY 200 Injectible Adhesive with Safe Set™ Technology



The new Safe Set™ System featuring HIT-HY 200 allows a fastening point to take high loads, as though the hole were cleaned using traditional installation methods.



Design made easy. Introducing simplified design tables from Hilti.

Hilti has made it even easier for engineers to comply with current codes and standards. The new, simplified anchor design tables from Hilti combine current Strength Design testing standards with the ease of the Allowable Stress Design (ASD) calculation method.

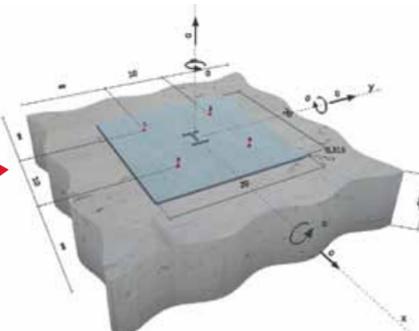
Table 1 — HIT-HY 200 Design Strength (Factored Resistance) for HIT-Z(-R) Rods in Uncracked Concrete

Anchor Diameter in. (mm)	Effective Embedment Depth in. (mm)	Tension — ϕN_u or N_t								Shear — ϕV_u or V_s							
		2500 psi		3000 psi		4000 psi		6000 psi		2500 psi		4000 psi		6000 psi		8000 psi	
		$f_c =$ Mpa	$f_c =$ lb (kN)	$f_c =$ Mpa	$f_c =$ lb (kN)	$f_c =$ Mpa	$f_c =$ lb (kN)	$f_c =$ Mpa	$f_c =$ lb (kN)	$f_c =$ Mpa	$f_c =$ lb (kN)	$f_c =$ Mpa	$f_c =$ lb (kN)	$f_c =$ Mpa	$f_c =$ lb (kN)	$f_c =$ Mpa	$f_c =$ lb (kN)
3/8 (9.5)	2-3/8 (60)	2,855 (12.7)	3,125 (13.9)	3,610 (16.1)	4,425 (19.7)	5,105 (22.7)	5,105 (22.7)	3,075 (13.7)	3,370 (15.0)	3,890 (17.3)	4,765 (21.2)	5,500 (24.5)	5,500 (24.5)	5,500 (24.5)	5,500 (24.5)	5,500 (24.5)	5,500 (24.5)
	4-1/2 (114)	5,385 (24.0)	5,385 (24.0)	5,385 (24.0)	5,385 (24.0)	5,385 (24.0)	5,385 (24.0)	16,035 (71.3)	17,570 (78.2)	20,285 (90.2)	24,845 (110.5)	28,990 (127.6)	28,990 (127.6)	28,990 (127.6)	28,990 (127.6)	28,990 (127.6)	28,990 (127.6)
1/2 (12.7)	2-3/4 (70)	3,565 (15.8)	3,895 (17.3)	4,500 (20.0)	5,510 (24.5)	6,365 (28.3)	6,365 (28.3)	3,760 (16.8)	4,130 (18.4)	4,890 (21.8)	5,970 (26.6)	6,960 (30.9)	6,960 (30.9)	6,960 (30.9)	6,960 (30.9)	6,960 (30.9)	6,960 (30.9)
	6 (152)	7,935 (35.3)	7,935 (35.3)	7,935 (35.3)	7,935 (35.3)	7,935 (35.3)	7,935 (35.3)	24,690 (109.8)	27,045 (120.3)	31,230 (138.9)	38,250 (170.1)	44,170 (196.5)	44,170 (196.5)	44,170 (196.5)	44,170 (196.5)	44,170 (196.5)	44,170 (196.5)
5/8 (15.9)	3-3/4 (95)	5,665 (25.2)	6,205 (27.6)	7,165 (31.9)	8,775 (39.0)	10,130 (45.1)	10,130 (45.1)	12,200 (54.3)	13,365 (59.5)	15,430 (68.6)	18,900 (84.1)	21,825 (97.1)	21,825 (97.1)	21,825 (97.1)	21,825 (97.1)	21,825 (97.1)	21,825 (97.1)
	7-1/2 (191)	14,955 (66.5)	14,955 (66.5)	14,955 (66.5)	14,955 (66.5)	14,955 (66.5)	14,955 (66.5)	34,505 (153.5)	37,800 (168.1)	43,650 (194.2)	53,455 (237.8)	61,725 (274.6)	61,725 (274.6)	61,725 (274.6)	61,725 (274.6)	61,725 (274.6)	61,725 (274.6)

PROFIS Anchor Software

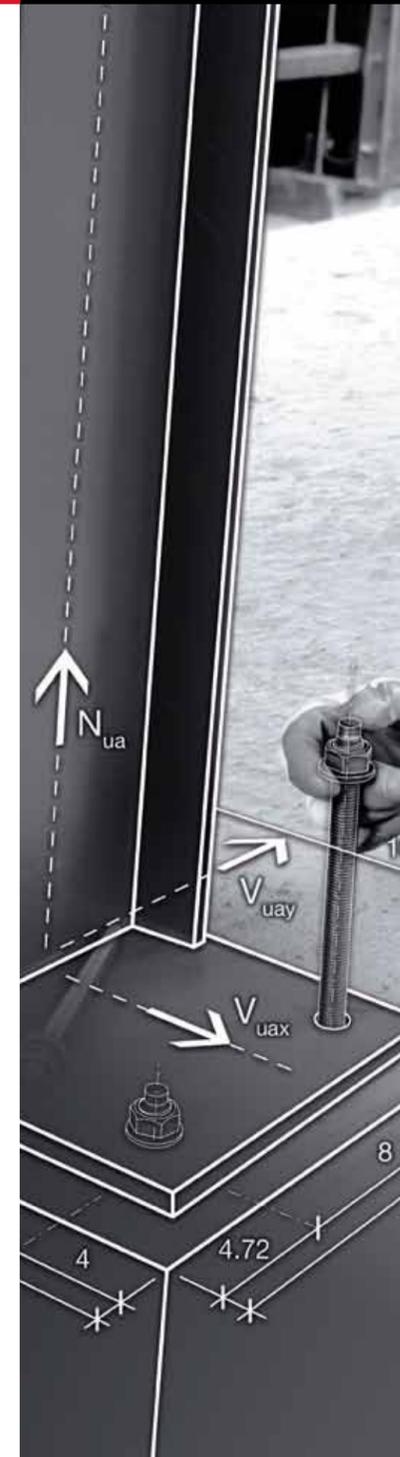
Hilti PROFIS Anchor represents the next generation in anchor design software. PROFIS Anchor performs calculations for cast-in-place anchors and Hilti post-installed anchors in accordance with the Strength Design provisions of ACI 318 and the International Building Code. Ask your Hilti Field Engineer or visit Hilti Online for details.

HIT-HY 200 and the new, alternative installation methods are now included in PROFIS Anchor. Look for HIT-Z Anchor Rods and TE-CD / TE-YD Hollow Drill Bit options when designing your next project.



Hilti. Outperform. Outlast.

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One giant leap.

Hilti. Outperform. Outlast.