

PRODUCTIVE, RELIABLE, SAFE SOLUTIONS

Chemical and Mechanical Anchor Systems





Chemical anchors

Chemical anchor portfolio	6
Base materials selector	8
Special conditions selector	9
Performance selector	10
Cure and work times	11
Chemical anchor approvals	12
Rod portfolio	13
Injection dispensers	14
Accessories	15
Why choose Hilti chemical anchors	16
Product comparison table	17

Mechanical anchors

Mechanical anchor portfolio	20
Base materials selector	21
Special conditions selector	22
Performance selector	23
Mechanical anchor approvals	24
Stud anchor setting system	25
Setting tools for mechanical anchors	26
High performance solutions	28
Everyday solutions	29
Economical solutions	30
Light duty fixings	31
Anchor testers	32
Product comparison table	33

Service and software

Technical support	38
Profis design software	39
How to get in touch	40



CHEMICAL ANCHOR SYSTEMS YOU CAN TRUST

Hilti Chemical Anchor Systems

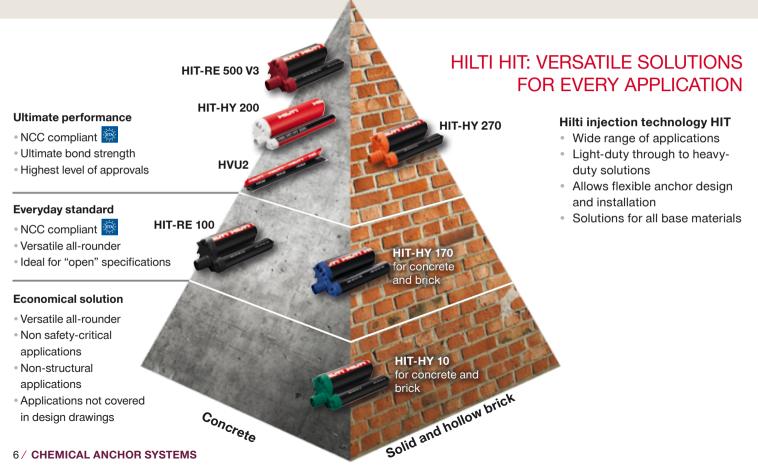
For a specifier or installer of anchoring connections, ensuring the safety and longevity of the build is paramount. That's why our products undergo extensive trials and technical assessments.

We offer a full suite of ETA assessed chemical anchoring solutions to suit every application from basic through to the most complex and challenging. Our wide range of injectable and capsule adhesive systems provide reliable solutions for fastening threaded rods, rebars and other elements to concrete, masonry and natural stone.

Our products are backed by an extensive array of technical resources including software, ETA documentation, technical data, installation instructions and videos.

CHEMICAL ANCHOR TECHNOLOGIES TO SUIT ALL NEEDS

The Hilti chemical anchor portfolio



CHEMICAL ANCHOR TECHNOLOGIES TO SUIT ALL NEEDS

The Hilti chemical anchor portfolio

HIVE

HILTI HVU2: SIMPLICITY IN A CAPSULE AND ROD SYSTEM

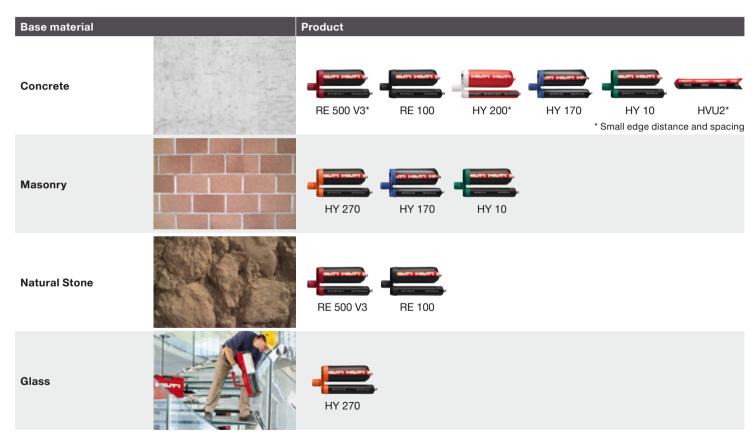
Hilti capsule technology HVU2

- Anchors can be loaded almost instantly only 5 minutes curing time at 20°C and above
- · High performance in cracked and uncracked concrete.
- Each capsule contains exactly the right amount of resin, for maximum efficiency and economy – no wastage and no need for complex calculations
- Tough and resilient soft foil capsule no more risk of breakage, like with glass capsules



ALL BASES COVERED /

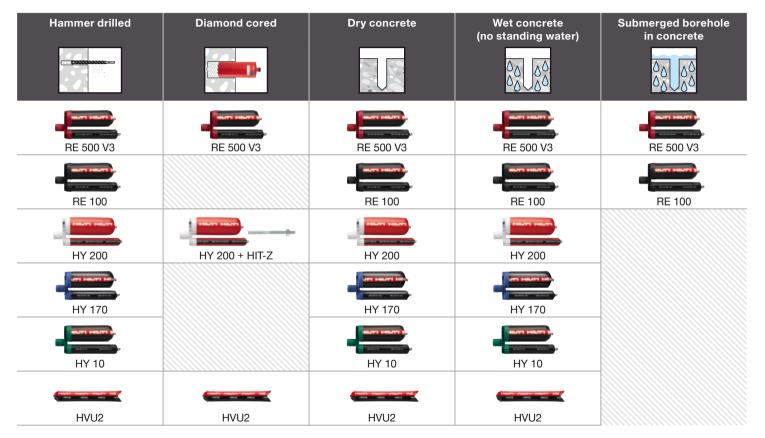
Chemical anchors for all common base materials



8 / CHEMICAL ANCHOR SYSTEMS

DIAMOND CORED OR WATER-FILLED HOLES? /

No problem for our premium chemical anchors

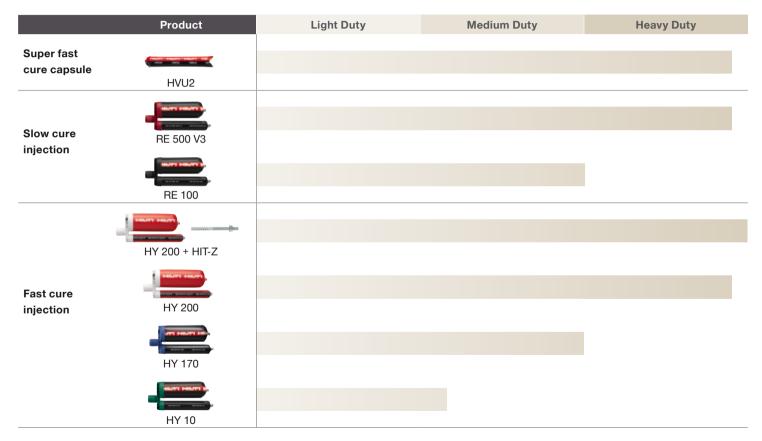


T 131 292 | www.hilti.com.au

Always refer to Instructions for Use

CHEMICAL ANCHOR SYSTEMS /9

AN ADHESIVE FOR EVERY APPLICATION / From light-duty through to heavy-duty



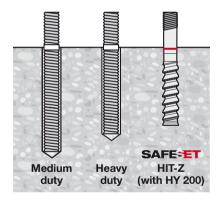
10 / CHEMICAL ANCHOR SYSTEMS

AN ADHESIVE FOR EVERY APPLICATION

From light-duty through to heavy-duty

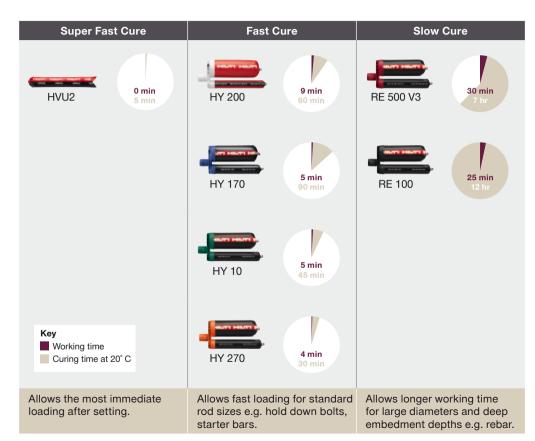
When time is money, choose SAFESET HY 200 + HIT-Z

- · Same load capacity
- Less mortar
- · Less rebar hits
- Less drill time, less drill bits
- Shorter rod



Download the Volume Calculator app from Google Play or the App Store

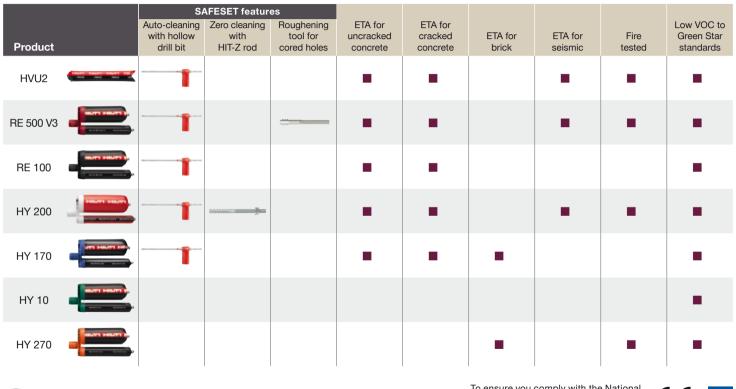




CHEMICAL ANCHOR SYSTEMS / 11

ADVANCED SYSTEMS /

All backed by European approvals and certifications



SAFESET For the ultimate in productivity, reliability and safety.

To ensure you comply with the National Construction Code (NCC), ask for the ETA documentation for the selected anchor.



12 / CHEMICAL ANCHOR SYSTEMS

PRODUCTIVITY, FLEXIBILITY, SIMPLICITY / Our rod portfolio offers all this and more

HIT-Z	HIT-V	HIS-N	HAS-E	Rebar*
SAFESET	and the second sec		1	Barrow and a state of the second
With HIT-HY 200 only	 All injection adhesives (HIT) 	 Capsule system (HVU2) All injection adhesives (HIT) 	 Capsule system (HVU2) All injection adhesives (HIT) 	 All injection adhesives (HIT)
 High end load performance NO hole cleaning required for maximum time saving Less embedment, less mortar 	 Variable diameters, lengths and steel grades Flexible embedment depths Rod size imprint for quality control 	 Internal thread to allow bolting and reusability of fixing Flush fixing finish Chisel point 	 Simple setting Easy check due to embedment mark Chisel point 	 Higher bond strength than cast-in Optimised embedment * Rebar not supplied by Hilti
Save time and money	► The allrounder	► Internal thread	Fast and easy	HIT rebar method

FASTER AND SAFER INSTALLATION

Our dispensers speed up the job and make injecting easy and safe



HDE 500-A22 The battery dispenser

- Speedy dispensing without compromising safety
- Up to 3 times faster than manual dispensing with no dripping
- Performance : ~ 700ml/ min
- Suits 500ml and 330ml tubes

Work continuously without getting tired

Battery compatible with all Hilti 22 volt cordless tools.

14 / CHEMICAL ANCHOR SYSTEMS



HDM 500 The manual dispenser



- Robust and reliable
- Ergonomic design for easy handling
- Suits 500ml and 330ml tubes

HDM 330 The lightweight manual dispenser



- Where light weight is required or work space is limited
- Suits 330ml tubes

P 8000 D The pneumatic dispenser



- For speedy dispensing in large diameter holes
- Performance ~ 20 sec for 1400ml tube

RELIABLE, SAFE AND EASY /

Chemical anchor accessories

SAFE: ET

No hole cleaning

Dustless and reliable setting, using Hilti SAFESET auto-cleaning feature of the hollow drill bit.

- Automatic hole cleaning for direct injection
- Wide range from M12 to M35
- Available drill depth up to 1000 mm
- NCC compliant only with HVU2 capsule, RE 500 V3 and HY 200

Hole cleaning accessories

For manual and machine cleaning.







≤Ø 55mmAll hole depths

Fast installation in cored holes

Roughen diamond cored holes for seismic conditions or cracked concrete.

 Faster installation thanks to less hole cleaning

SAFE

- Achieve higher loads
- NCC compliant only with RE 500 V3

Secure injection

Total installer safety and reliable setting with Hilti piston plugs and drip guards for overhead anchoring.



- No air bubbles
- No mortar blow out
- Less mortar



YOUR FIRST CHOICE CHEMICAL ANCHORS /

Why choose Hilti

2

Hilti anchors comply with AS 5216:2018 (SA TS 101) and the National Construction Code

Work dustless with the SAFESET system for a healthy working environment

3

Battery dispenser allows safe, fast, repetitive use

Unique foil pack minimises mortar wastage

5

Volume Calculator App tells you exactly how much chemical you need 6

Low VOC levels are Green Star compliant



F





Chemical anchor quick comparison chart

	HVU2	RE 500 V3	RE 100	HY 200	HY 170	HY 10	HY 270
Туре	Capsule	Epoxy adhesive	Epoxy adhesive	Hybrid mortar	Hybrid mortar	Hybrid mortar	Hybrid mortar
Load	Ultimate	Ultimate	High	Ultimate	High	Medium	High
Base materials	Concrete	Concrete, Natural stone	Concrete, Natural stone	Concrete	Concrete, Masonry	Concrete, Masonry	Masonry, Glass
Curing	Super fast	Medium	Slow	Fast	Fast	Fast	Fast
Hammer drilling	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Diamond coring	Yes	Yes		Yes (with HIT-Z)			
Concrete dry, wet	Yes	Yes	Yes	Yes	Yes	Yes	
Concrete under water		Yes	Yes				
Approvals:							
ETA concrete: non-cracked	Yes	Yes	Yes	Yes	Yes		
ETA concrete: cracked	Yes	Yes	Yes	Yes	Yes		
ETA masonry					Yes		Yes
ETA seismic	Yes	Yes		Yes			
Fire rating	Yes	Yes		Yes			Yes
Green Star	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SAFESET	Yes	Yes	Yes	Yes	Yes		
Dispensing		Easy	Easy	Easy	Easy	Easy	Easy
Wastage	None	Low	Low	Low	Low	Low	Low
Odour	None	Low	Low	Low	Low	Low	Low
Installation time	Super Fast	Very Fast	Fast	Very Fast	Fast	Fast	Fast
Cost	\$\$\$	\$\$\$	\$\$	\$\$\$	\$\$	\$	\$\$\$
Sizes	Capsule	330 ml 500 ml 1400 ml	500 ml	330 ml 500 ml	330 ml 500 ml	330 ml 500 ml	330 ml



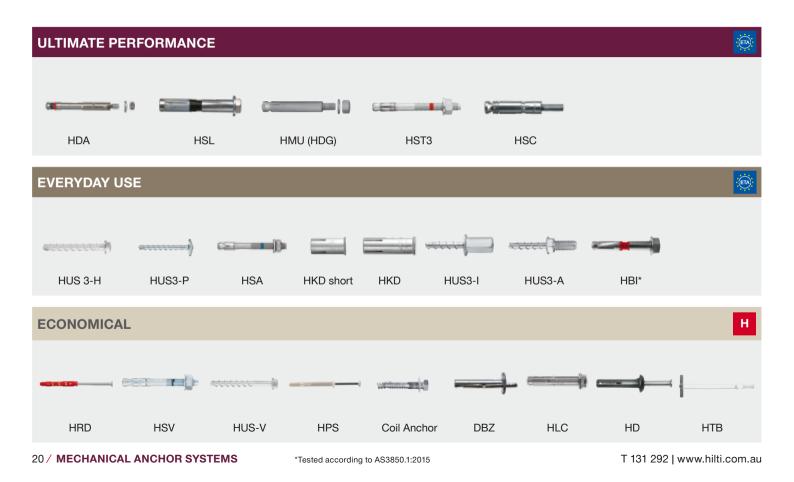
MECHANICAL ANCHOR SYSTEMS YOU CAN TRUST

Hilti Mechanical Anchor Systems

Our extensive range of mechanical anchors covers fixings for all kinds of base materials, from concrete and precast panels through to masonry and hollow blocks. We have fastening solutions for different environments and applications.

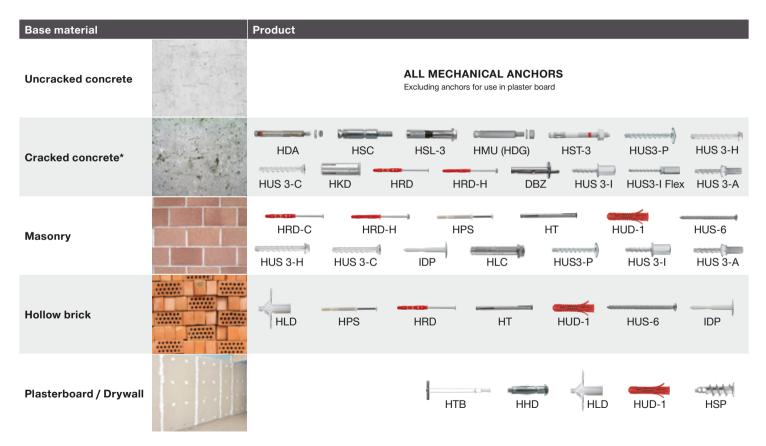
And for your peace of mind, our anchors are proven to provide the strongest solution for safety critical applications - fully backed by technical documentation, software and engineering services. MECHANICAL ANCHORS TO SUIT ALL NEEDS /

The Hilti mechanical anchor portfolio

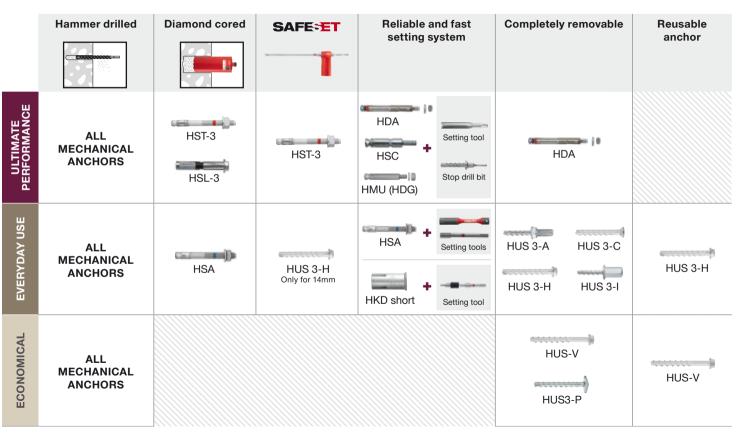


ALL BASES COVERED

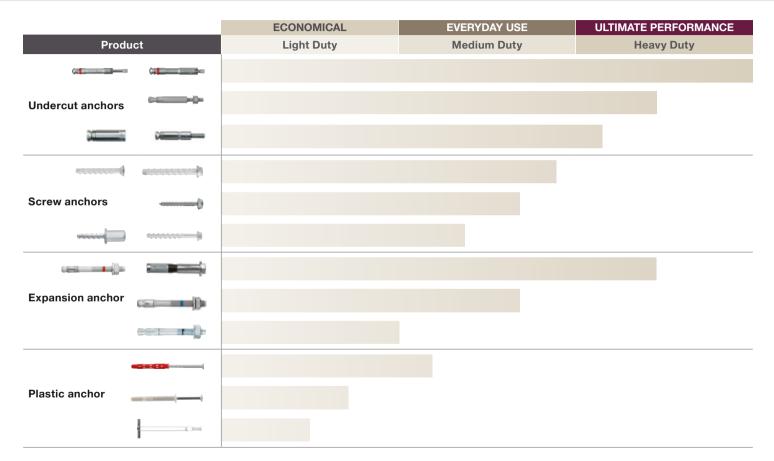
A mechanical anchor for every base material



SOLUTIONS FOR SPECIAL CONDITIONS /



BEST IN CLASS / From economical to ultimate performance



ADVANCED SYSTEMS /

Compliance with AS 5216 (SA TS 101) and beyond

	COMPLIANC	E TO AS 5216	SAFETY BEYOND AS 5216 – MAXIMUM PROTECTION IN EXTREME CONDITIONS					DITIONS
Product	ETA for anchoring	ETA for cracked concrete	Seismic approvals C1 (ETA)	Seismic approvals C2 (ETA)	Seismic approvals (engineering judgement)	Shock approval	Fatigue approval	Fire approval
HDA	-			-		-	-	-
HSL3	-	-	-					-
HST3	-							-
HMU-PF	-	-	-			•		-
HSC	-							-
HUS3*	-	-	-	-				-
HUS3-I / HUS3-A / HUS3-H6**								
HSA	-							-
HKD**								-
DBZ**								-
HRD**								-

*Seismic C1 & C2 approval for diameter 10mm & 14mm. Seismic C1 approval for diameter 8mm. **Approvals for redundant fastenings available. Contact Hilti for advice.

THE APPROVED ADAPTIVE TORQUE SYSTEM /

SI-AT-A22 impact wrench module



The SI-AT-A22 module guarantees a more productive and safe installation method.

The installation documentation reports the actions performed.

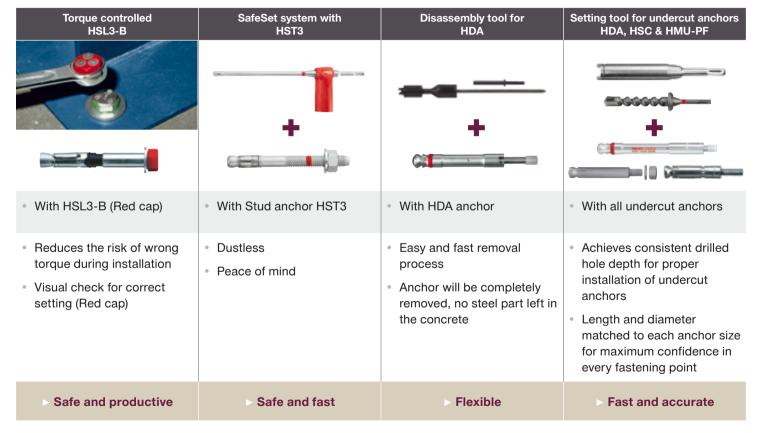
FASTER INSTALLATION /

Setting tools for greater productivity

Setting tool for HSA anchors	Setting tool for HKD anchors	Checking gauge for HUS anchors	Setting system for HUS anchors
		+	
			eccentri)
 With stud anchors HSA, HSA-F & HSA-R 	 With all the short HKD's 	 With all the screw anchors 6mm diameter 	 With all the screw anchors
 No over or under torquing SIW impact wrench with torque bar for setting anchors quickly and reliably 	 Reduces the risk of rebar hits when drilling Drilling and setting with one tool No need to change tools Holes always drilled to the correct depth 	 Verified reusability Check anchor performance with HRG check gauge 	 Fast Installation Cutting edge geometry for superior setting
Save time and money	Safe and productive	⊳ Safe	Productive

FLAWLESS INSTALLATION /

Installation tools for greater safety



HIGH PERFORMANCE ANCHORS / Strongest solutions for safety critical applications

HDA	HSC	HSL	HMU	HST3
18	A STATE OF THE OWNER			and the second second
HDA-P, HDA-PR (pre-setting) HDA-T, HDA-TR (through setting) Image: A setting Image: A setting	HSC-I (internal thread) HSC-A (external thread)	HSL3-B (red cap) HSL-3, HSL-G, HSL-GR (nut and bolt) HSL-3 BW (big washer) HSL - 3 BW (big washer)	HMU-PF	HST3 HST3-R HST3-R HCR HCR HCR HCR HCR HCR HCR
 Heavy-duty fastenings for all dynamic loading (shock, seismic and fatigue) in cracked or uncracked concrete Self-undercutting facilitates fast and reliable installation Close spacing and small edge distance 	 High loads at shallow embedment, small edge distances and close spacing Self-undercutting facilitates fast and reliable installation Excellent dynamic and shock load resistance 	 Special safety red cap ensures the correct installation torque High variety of head configuration provides more flexibility Suitable for applications with high shear and tensile loads 	 High performance undercut with a hot- dip galvanised coating for protection against corrosion Self-undercutting facilitates fast and reliable installation Simple verification of correct setting with red mark 	 Highest tensile and shear load performance One solution for multiple conditions: new concrete to old structures, diamond core, dustless installation Greater flexibility with thin slabs due to two embedment depths Close to slab edge and smallest spacing

EVERYDAY ANCHORS /

Approved solutions for day to day applications

HUS3-H/C	HUS3-I/A/P	HSA	HKD	НВІ
and the second second	and the second s	The second se		
HUS3-H, HUS3-HF, HUS-HR, HUS3-C, HUS-CR	HUS3-I HUS3-I Flex HUS3-A HUS3-P	HSA, HSA-F, HSA-R	HKD, HKD-SR HKD-D HKD-ER	HBI AS AS 3850.1:2015 - Precast and Tilt-Up Concrete Construction
 Fast and easy installation Completely removable Adjustable Small spacing and edge distance Safety through verified reusability Nice head finish 	 50% faster than traditional flush anchors Shallow embedment depth and closer to edge Easy setting thanks to cutting edge Can be removed ETA approved for prestressed hollow core slabs 	 Safe and fast hammering with the HS-SC tool The only stud anchor to be installed with impact wrench: fast, convenient and reliable torqueing with the torque bar Best performance for uncracked concrete 3 embedment depths offering maximum flexibility 	 Flared end for accurate setting flush with the surface, independent of the hole depth Ideal for repetitive fastening with threaded rods of equal length Anchor and setting tool provides faster installation ETA approved for prestressed hollow core slabs (HKD short only) 	 For temporary bracing of precast and tilt up application Tested in accordance with Australian standard AS 3850.1:2015

ECONOMICAL ANCHORS /

Efficient solutions for a variety of conditions

HRD-H/C	HPS	НТВ	DBZ	HUS6	HUS-V	HSV
					A CONTRACTOR OF	
HRD-H, HRD-HF, HRD-HR, HRD-C, HRD-CR	HPS-1, HSP-1R	HTB, HTB-S	DBZ	HUS6	HUS-V	HSV, HSV-F
<u> </u>	H Hilti Technical Manual	H Hilti Technical Manual	🔊 🔁 🎦 🤃 CE	H Hilti Technical Manual	H Hilti Technical Manual	H Hilti Technical Manual
 Flexibility to use with many base materials No spinning in the borehole Flexible embedment depth Wide range of fastening thickness Double thread for high loads in hollow materials 	 For universal use on many materials, including perforated brick and block The hammer- driven screw can be driven or unscrewed using a screwdriver Quick impact installation using a hammer 	 Designed for hollow base material Simple setting process Flexible embedment depth Removable screw: toggle stays in place 	 Simple and fast through- fastening Impact expansion by hammering in, no setting tool is needed Reliable setting thanks to the simple visual check 	 Wide range of lengths available Quick and easy to set 	 Fast and easy installation Completely removable Small spacing and edge distance Safety through verified reusability 	 Two embedment depths for a wide range of fastening thicknesses Setting mark for easy checking of correct installation depth Raised impact section prevents thread damage during installation

OTHER ANCHORS /

Solutions for light duty fixing

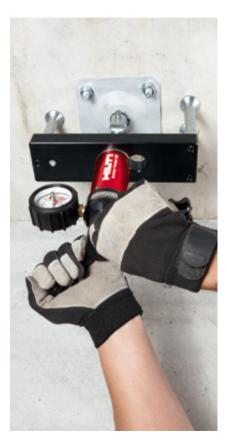


T 131 292 | www.hilti.com.au

MECHANICAL ANCHOR SYSTEMS / 31

ASSURANCE FOR YOUR PEACE OF MIND /

Anchor testers





HAT 28 Elevator HAT 28 E



Effective span of loadspreading bridge: 207 mm

HAT 28 E / HAT 28 M / HAT 28 SR

Complete systems including accessories, packed in an impact resistant aluminium case

- · Test load can be read directly from the gauge
- Suitable for testing anchors with various head forms and of various diameters
- Compact and easy-to-use

HAT 28 Master Kit HAT 28 M



Effective span of loadspreading bridge: 118 mm

HAT 28 HAT 28 SR



Effective span of loadspreading bridge: 207 mm T 131 292 | www.hilti.com.au

32 / MECHANICAL ANCHOR SYSTEMS

COMPARE OUR RANGE / Mechanical anchor quick comparison chart

Anchor type		U	Indercut ancho	ſS	Expansion anchors				
		HDA	HMU-PF	HSC	HSL-3	HST3	HST2	HSA	HSV
	Anchor size	M10-M20	M8-M20	M6-M12	M8-M24	M8-M24	M8-M16	M6-M20	M8-M16
	Cracked concrete								
_	Non cracked concrete						•		-
BASE MATERIAL	Lightweight concrete								
MAT	Aerated concrete								
ASE	Solid brick masonry								
8	Hollow brick masonry								
	Drywall								
	Redundant fastening								
	European Technical approval (ETA)								
ALS	ETA seismic C1								
APPROVALS	ETA seismic C2								
APP	Fatigue approval*								
	Shock approval*								
	Fire tested						-		
	Steel, galvanised								-
NO	Steel, hot-dipped galvanised								-
SPECIFICATION	Stainless steel A2								
CIFI	Stainless steel A4								
SPE	External thread								
	Internal thread								
SETTING	Pre-setting								
SETI	Through-fastening						-		
	Profis		•						

COMPARE OUR RANGE / Mechanical anchor quick comparison chart

				Screw anchors	Flush anchors				
	Anchor type	HUS3	HUS3 REDUNDANT	HUS-HR HUS-CR	HUS-V	HUS 6	нкр	HKD REDUNDANT	нки
	Anchor size	6, 8, 10, 14	6	HUS-HR: 6, 8, 10, 14 HUS-CR: 8, 10	8, 10	6	M6-M20	M6-M16	M16 x 65
	Cracked concrete								
_	Non cracked concrete		-	-		-			
ERIA	Lightweight concrete								
MATI	Aerated concrete		-	-					
BASE MATERIAI	Solid brick masonry								
	Hollow brick masonry					-			
	Drywall								
	Redundant fastening		-			•		•	
	European Technical approval (ETA)						-		
ALS	ETA seismic C1			-					
APPROVALS	ETA seismic C2								
APP	Fatigue approval*								
	Shock approval*								
	Fire tested		-	-		-		-	
	Steel, galvanised					•	-		
NO	Steel, hot-dipped galvanised								
SPECIFICATION	Stainless steel A2								
ECIFI	Stainless steel A4			-			-	-	
SPI	External thread		•						
	Internal thread		-			-		-	
SETTING	Pre-setting						=		
SET	Through-fastening		-			-			
	Profis	-							

34 / MECHANICAL ANCHOR SYSTEMS

COMPARE OUR RANGE /

Mechanical anchor quick comparison chart

		Plastic anchors											
	Anchor type	HRD	HPS-1	HUD-1	HUD-L	HLD	DBZ	HLC	нт	HCA	HHD-S	HSP/HFP	НТВ
	Anchor size	M8-M10	M4-M8	M5-M14	M6-M10	M10	M6	M5-M16	M8-M10	1/2"	M4-M8	M4,5	M5-M6
BASE MATERIAL	Cracked concrete												
	Non cracked concrete						•	•					
	Lightweight concrete												
	Aerated concrete												
	Solid brick masonry							-					
	Hollow brick masonry												
	Drywall												
APPROVALS	Redundant fastening						•						
	European Technical approval (ETA)												
	ETA seismic C1												
	ETA seismic C2												
	Fatigue approval*												
	Shock approval*												
	Fire tested												
SPECIFICATION	Steel, galvanised												
	Steel, hot-dipped galvanised												
	Stainless steel A2												
	Stainless steel A4												
	External thread												
	Internal thread												
SETTING	Pre-setting							•					
	Through-fastening						•	•					



SERVICE AND SOFTWARE

Hilti Service and Software

We make your projects easier, safer and more productive by automating complex calculations and reducing the need for in-depth engineering expertise. Our design software solutions are based on tested and approved Hilti technologies and international codes to ensure you safely and reliably design applications.

Our team of engineers will work with you on-site and on the phone across Australia.

HILTI SERVICE / Whe

When and where vou need it



We provide expert advice, when and where you need it

Our on-site anchor testing ensures the quality and safety of the end result





Hilti anchors comply with AS 5216:2018 (SA TS 101) and the National Construction Code



Profis software ensures the ideal solution for the application design



Our national team of engineers provides specialist support to ensure the job is done right

PROFIS SOFTWARE /

Our state of the art PROFIS software assists planners and specifiers make the necessary calculations to design anchor and rebar connections with simplicity and certainty.

SIMPLICITY

- Easy to use visual software makes it easy to model your exact application
- Full access to Hilti's BIM/CAD objects integrated within the software
- Detailed design reports created automatically to provide your project documentation
- Automatic software updates ensure you are always working with the most current product approvals and latest design methods



CERTAINTY

 Compliant with the National Construction

Code and standard AS 5216:2018 (SA TS 101:2015) Design of postinstalled and cast-in fastenings for use in concrete

 Filter ETA pre-qualified products by intended use in accordance with AS 5216:2018, for easy selection of the right anchor product with the right ETA approval



(

- Meet design challenges which fall outside the scope of AS 5216:2018, such as seismic design with seismically approved anchors
- Access to SOFA and FIB allows a wider range of standard anchor layouts as well as the ability to design fully customised layouts
- Other design methodologies such as ETAG and ACI can also be used
- Full support from Hilti Field Engineers nationwide

LEARN MORE ABOUT PROFIS

SERVICE AND SOFTWARE / 39

WE'RE HERE TO HELP /



TECHNICAL CENTRE / FIELD ENGINEERS

Our experienced engineers ensure the job gets done right, the first time. Available both on the phone and on-site, they offer technical support for complex applications, training and site-testing.

Call: 131 292 Email: AUTechnicalCentre@Hilti.com



CUSTOMER SERVICE

Our Customer Service representatives are available on the phone, Monday to Friday from 7:30am to 5:00pm.

Call: 131 292 Fax: 1300 135 042 Email: serviceaustralia@hilti.com



HILTI STORES

With stores located nationally, you can receive professional advice on products and applications.

Visit: www.hilti.com.au/stores



HILTI ONLINE

7 days a week, 24 hours a day, our website is available at your own convenience for quick access to product information and pricing.

Visit: www.hilti.com.au



ACCOUNT MANAGERS

Our professionally trained Account Managers are readily available nationwide, to visit your place of work. They can help evaluate your job requirements and suggest ways to increase your productivity and profitability.

Call: 131 292



ASK HILTI

Join the expert community for continuing education and expert advice on anchoring and firestop applications.

Register: ask.hilti.com.au



Hilti (Aust.) Pty Ltd Level 5, 1G Homebush Bay Drive Rhodes NSW 2138 P 131 292 F 1300 135 042 www.hilti.com.au

