

# Hilti Screw System

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Customer Hotline

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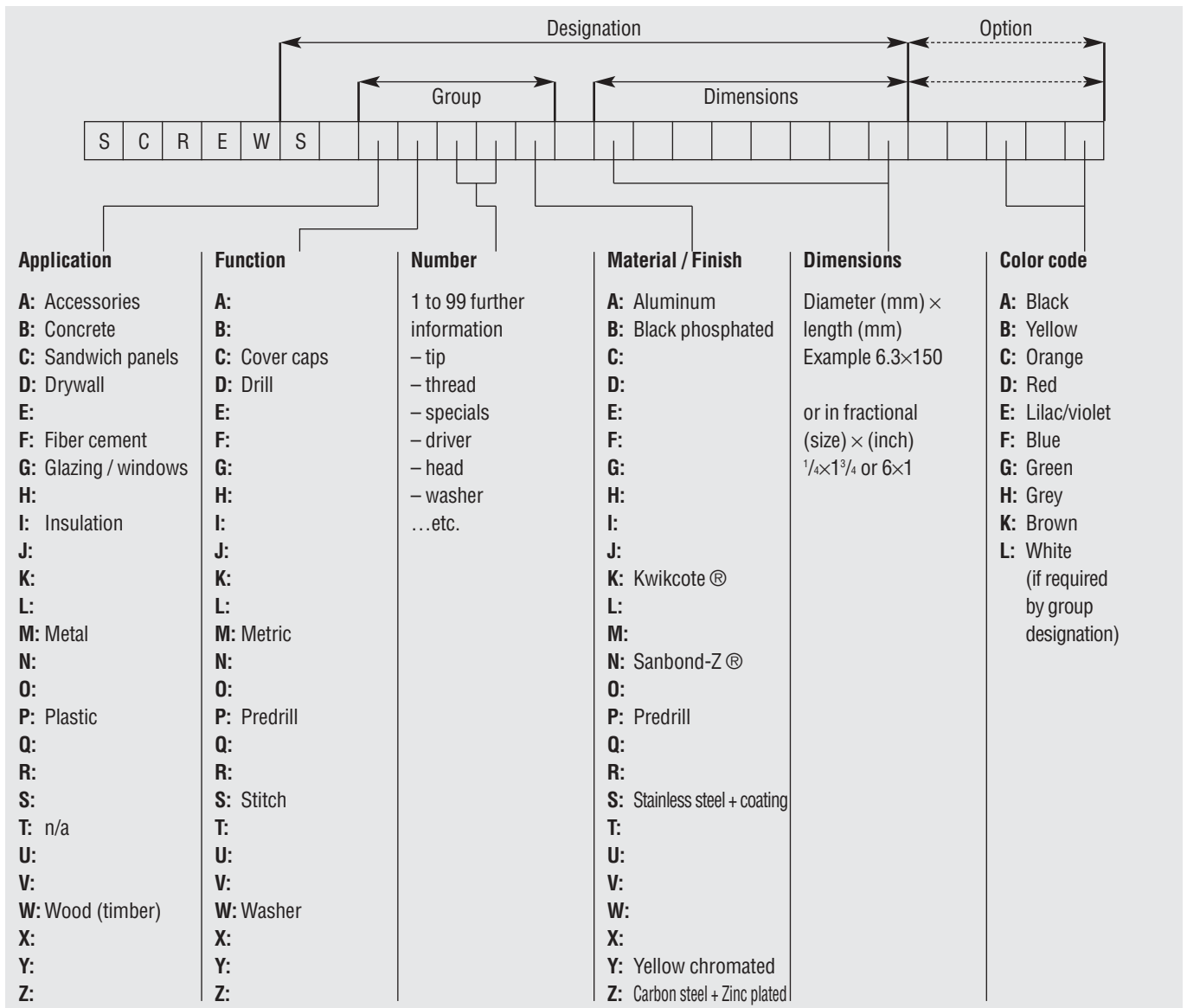
## SAMPLE SUBMISSION AND APPROVAL FORM

Contract Title : _____ _____ _____ Contract No. : _____ File : _____ Reference : _____	Ref. No. : _____ Date : _____ Ref. No. of Previous Submission: (1) : _____ (2) : _____
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<b>DETAILS OF SUBMISSION</b>	
To :	Contract Manager's Representative (Attn: Mr. ) *(Name of Consultant Projects)
From :	(State Name of Contract)
To enclosed sample boards and catalogue* / technical data* / test report* / job reference* as described below have been checked for compliance with the Specifications and Drawings, and are herewith submitted for approval.	
a) Materials Description :	Hilti Self-drilling screw
b) Model Name :	_____
c) Specification Ref. Page :	_____ Item : _____
d) Drawing Ref. No. :	_____
e) B.Q. Ref. No. :	_____
f) Location (application) :	_____
g) Brand Name :	Hilti
h) Manufacturer :	Sheh Fung Screws Co Ltd (OEM Partners)
i) Source of Origin :	Taiwan
j) Supplier :	Hilti (Hong Kong) Ltd.
k) Catalogue :	Attached
l) Technical Data :	Attached
m) Test Report :	Attached
n) Job Reference :	Attached
o) Material Safety Data Sheet :	N / A
p) Anticipated date of approval :	A.S.A.P.
For and on behalf of the Contractor:	
_____ Quality Control Engineer	

<b>CONTRACT MANAGER'S COMMENTS</b>	
To :	(State Name of Contract)
From :	Contract Manager's Representative (Mr. ) *(Name of Consultant for Consultant Projects)
On the basis of the sample and information given, the above sample submitted is:	
1)* Approved :	_____
2)* Approved subject to :	_____
3)* Not approved because :	_____
	And resubmission is required.
Remarks :	_____
	_____
Approval does not alter the requirements of the Contract unless specifically noted. Contract Manager's Representative (Mr. )	
Date: _____	
c.c. Project Clerk of Work – with sample PQS Contract File (* Delete if inappropriate)	

## Hilti designation system



Example:	Schr	S-MP 52 S 6.3×50 (German)
	Screw	S-MP 52 S 6.3×50 (English)
	Vis	S-MP 52 S 6.3×50 (French)
	Tor	S-MP 52 S 6.3×50 (Spanish)

As a result of the structuring in groups and sub-groups, the screw characteristics can be identified more easily from the designation.

The user does not have to note the entire designation or item number. A screw is already clearly defined by the group designation and the dimension.

## Drill point table

### Table

The following chart shows the drilling range per drill point number in relation to the screw nominal diameter.

Steel thickness (mm)	Point 1						Point 3						Point 5
	12.00												
10.00													
7.50													
5.00													
2.50													
	1.00	1.50											
	1.00	1.00	1.25	1.25	1.25	1.25	1.25	1.25					
Dia. (mm)	3.50 # 6	3.90 # 7	4.20 # 8	4.80 # 10	5.50 # 12	6.30 # 14	3.50 # 6	3.90 # 7	4.20 # 8	4.80 # 10	5.50 # 12	6.30 # 14	5.50 # 12
			2.50	<sup>1)</sup> 2.00 2.75	<sup>2)</sup> 4.00 3.00	3.00		2.50	3.50	4.50	5.50	6.00	4.60
							2.00		2.10	2.10	2.60	2.60	

### Description

The drill point diameter is selected to ensure that a screw can be driven optimally and the highest pull-out value obtained.

The thickness to be drilled through determines the drill point length, the cutting groove (flute) length and the thread diameter. The length of the drill point must always be selected to ensure that the total thickness can be drilled through completely before thread tapping or forming begins.

The required drill point size for the given thickness and the stipulated screw diameter are given in the above table.

<sup>1)</sup> Self-drilling screw, case hardened: 2.75 mm  
Self-drilling screw, stainless steel: 2.00 mm

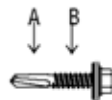
<sup>2)</sup> Self-drilling screw, liner sheets, stainless steel: 4.00 mm  
Self-drilling screw, case hardened: 3.00 mm  
Self-drilling screw, stainless steel: 3.00 mm

### Carbon steel self-drilling screws

#### Applications

Screws with sealing washers for fastening profile steel sheet to profile steel sheet or for fastening profile steel sheet to steel framing.

Screws without sealing washers for framing fastenings (not exposed to weather).



#### Product description

The screw first drills the required hole in the part to be fastened and in the framing (A).

Then the thread is cut (B).

A watertight seal is formed at the fastening when the screw with sealing washer is driven.

The carbon steel screw is case hardened.

The surface of the screw is galvanized. This protects the screw from corrosion and lubricates the drilling and thread-cutting operation.

These screws have been awarded the construction supervisory authority approval in Germany. Please note the approval mark shown for each of the applicable screw programs.



All screws can be ordered with colored heads and washers in colors according to the RAL color chart.

#### Screw designations

e.g.: S-MD 51 Z 5.5x45

S	for screw fastening
M	for metal construction
D	for self-drilling screw (D = drilling)
5	2 – pressed-on steel flange Ø 15 mm 4 – sealing washer Ø 14 mm 5 – sealing washer Ø 16 mm 6 – sealing washer Ø 19 mm 7 – sealing washer Ø 22 mm 0 – without sealing washer
1	1 – drill point # 1 = 1.25 up to approx. 3 mm drilling thickness 3 – drill point # 3 = 2.1 to 6 mm drilling thickness 5 – drill point # 5 = 4.6 to 12 mm drilling thickness Please refer to the screw program for the specific max. drilling thickness for each screw.
Z	galvanized carbon steel (Z for zinc)
5.5x45	screw dimensions (Ø x length)

Further designations:

S-MD51Z 4.8x19 **PB15**

S-MD51LZ 4.8x38

S-MD01Z 4.8x19 **M**

S-MD01Y 4.8x19

PB 15 screw head in the colors listed in the RAL color chart

L extended drill point

M collated

Y surface galvanized and yellow chromated

### Stainless steel self-drilling screws

#### Applications

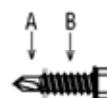
Stainless steel screws with sealing washers for fastening profile steel sheet to profile steel sheet or for fastening profile steel sheet to steel framing.

Fastening profile aluminium sheet to profile aluminium sheet or for fastening profile aluminium sheet to steel framing.

Screws without sealing washers for framing fastenings (not exposed to weather).

#### Product description

The screw is made from two different materials:  
Stainless steel (part B) and hardened carbon steel (part A)



The drill point and thread start are made from hardened carbon steel. This ensures trouble-free screw fastening even in the hardest construction steel.

The screw first drills the required hole in the part to be fastened and in the framing (A). Then the thread is cut (B).



A watertight seal is formed at the fastening when the screw with sealing washer is driven.

The surface of the screw is galvanized. This protects the screw from corrosion and lubricates the drilling and thread-cutting operation.

These screws have been awarded the construction supervisory authority approval in Germany. Please note the approval mark shown for each of the applicable screw programs.



All screws can be ordered with colored heads and washers in colors according to the RAL color chart.

#### Screw designations

e.g.: S-MD 51 S 5.5x45

S	for screw fastening
M	for metal construction
D	for self-drilling screw
5	2 – pressed-on steel flange Ø 15 mm 4 – sealing washer Ø 14 mm 5 – sealing washer Ø 16 mm 6 – sealing washer Ø 19 mm 7 – sealing washer Ø 22 mm 0 – without sealing washer
1	1 – drill point # 1 = 1.25 to 4 mm drilling thickness 3 – drill point # 3 = 2.1 to 6 mm drilling thickness 5 – drill point # 5 = 4.6 to 12 mm drilling thickness Please refer to the screw program for the specific max. drilling thickness for each screw.
S	stainless steel 1.4301 (S for stainless steel)
5.5x45	screw dimensions ( Ø x length)

Further designations:

S-MD51Z 4.8x19 **PB15**

S-MD51LS 5.5x25

S-MD01Z 4.8x19 **M**

PB 15 screw head in the colors listed in the RAL color chart

L extended drill point

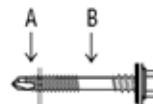
M collated

### Applications

Stainless steel screws with sealing washers for fastening sandwich panels to steel members or timber framing.

### Product description

The screw is made from two different materials:  
Stainless steel (part B) and hardened carbon steel (part A)



The drill point and thread start are made from hardened carbon steel. This ensures trouble-free screw fastening even in the hardest construction steel.

The screw first drills the required hole in the part to be fastened and in the framing.  
It then cuts the thread.

The threadless shank ensures that the screw can be driven without stressing the sandwich panel (no denting).  
The larger thread at the head (6.3 mm) pulls the sealing washer against the outer skin of the sandwich panel.  
This ensures that no water can penetrate.

The surface of the screw is galvanized. This protects the screw from corrosion and lubricates the drilling and thread-cutting operation.

These screws have been awarded the construction supervisory authority approval in Germany.  
Please note the approval mark shown for each of the applicable screw programs.



All screws can be ordered with colored heads and washers in colors according to the RAL color chart.

### Screw designations

e.g.: S-CD65S 5.5x130

S	for screw fastening
C	for sandwich panels (C = composite)
D	for self-drilling screw (D = drilling)
6	6 – sealing washer Ø 19 mm
	7 – sealing washer Ø 22 mm
5	1 – drill point # 1 = for use on timber framing.
	3 – drill point # 3 = 2.0 to 5.5 mm drilling thickness
	5 – drill point # 5 = 3.5 to 12 mm drilling thickness
S	stainless steel 1.4301 (S for stainless steel)
5.5x130	screw dimensions (Ø x length)

Further designations:  
S-CDW 61 S 6.5x180

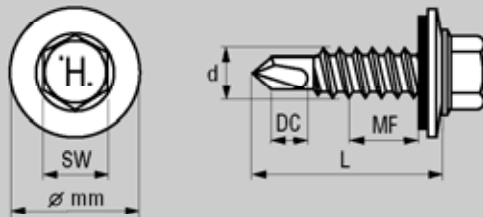
W applications on timber (W = wood)

**S-MD51Z** galvanized, case-hardened, carbon steel self-drilling screw for sheet overlaps, with reduced-diameter drill point and fitted EPDM sealing washer,  $\varnothing$  16 mm. Self-drilling screws with colored head and sealing washer; other special colors available on request.

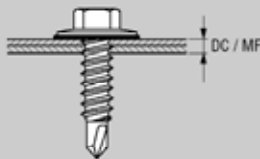


### Uses:

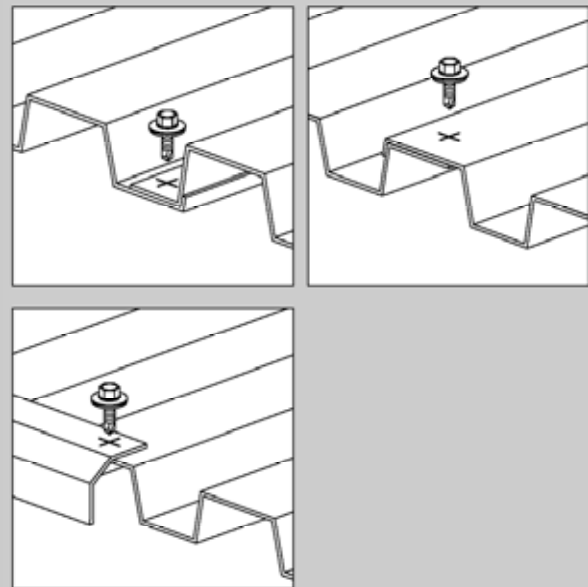
Fastening sheet metal to sheet metal where exposed to the weather, for secure, watertight sheet metal joints.



### Sheet metal joints



### Examples of applications:



### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	RAL color	Package contents	Ordering designation	Item no.
1.2-2.75	5.5	4.8x19	16	8		500	S-MD51Z 4.8x19	219032

### RAL colors available immediately from stock

1.2-2.75	5.5	4.8x19	16	8	1015 light ivory	500	S-MD51Z 4.8x19 PB 15	224616
1.2-2.75	5.5	4.8x19	16	8	5008 gray blue	500	S-MD51Z 4.8x19 PF 08	231397
1.2-2.75	5.5	4.8x19	16	8	7022 umbra gray	500	S-MD51Z 4.8x19 PH 22	224617
1.2-2.75	5.5	4.8x19	16	8	8012 red brown	500	S-MD51Z 4.8x19 PK 12	235208
1.2-2.75	5.5	4.8x19	16	8	9002 gray white	500	S-MD51Z 4.8x19 PL 02	224615
1.2-2.75	5.5	4.8x19	16	8	9006 white aluminium	500	S-MD51Z 4.8x19 PL 06	224614
1.2-2.75	5.5	4.8x19	16	8	9010 pure white	500	S-MD51Z 4.8x19 PL 10	224613

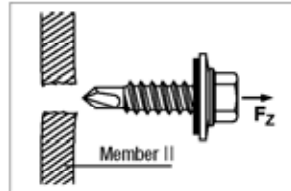


## Carbon steel self-drilling screw

### Technical data

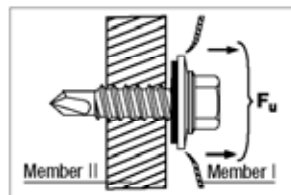
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



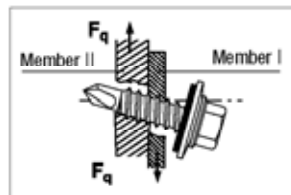
Fz (N)					
Framing					
Member II:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
Fz (N):	760 N	1000 N	1620 N	2120 N	2500 N

#### Pull-over values, $F_u$ (N) with sealing washer Ø 16 mm



$F_u$ (N)					
Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
$F_u$ (N):	3630 N	5370 N	7700 N	10100 N	10100 N

#### Shear values, $F_q$ (N)



$F_q$ (N)			
Member I	Member II	$F_q$	
0.63 mm	0.63 mm	1300 N	
0.75 mm	0.75 mm	1780 N	
0.63 mm	1.00 mm	2850 N	
0.63 mm	1.25 mm	2870 N	
0.75 mm	1.25 mm	2870 N	

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, F rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

#### Installation notes

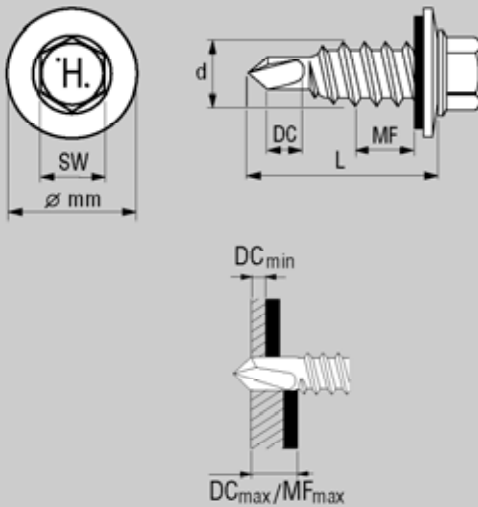
Screwdriver:	Hilti ST2500, Hilti ST1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

**S-MD51Z** galvanized, case-hardened, carbon steel self-drilling screw with reduced-diameter drill point and fitted EPDM sealing washer  $\varnothing$  16 mm.  
Colored screws available on request.

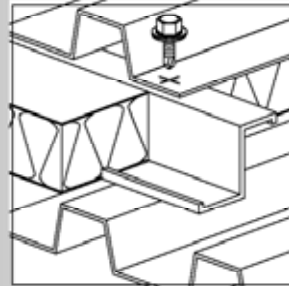


### Uses:

Fastening sheet steel to thin steel sections and liner trays.



### Examples of applications:



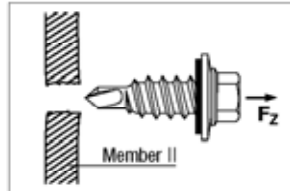
### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	Package contents	Ordering designation	Item no.
1.2-3	4	6.3 x 19	16	3/8"	500	S-MD51Z 6.3 x 19	219034

## Carbon steel self-drilling screw

### Technical data

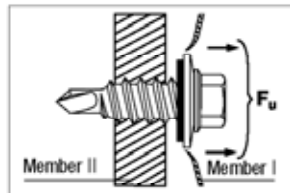
#### Pull-out values, $F_z$ (N) Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



#### $F_z$ (N) for sheet thickness (mm)

Framing Member II:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
$F_z$ for member II:	910 N	1160 N	1730 N	2370 N	3060 N

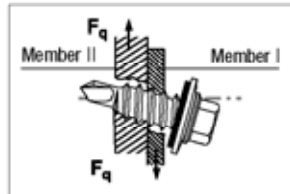
#### Pull-over values, $F_u$ (N) with sealing washer $\varnothing$ 16 mm



#### $F_u$ (N)

Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
$F_u$ (N):	4740 N	6060 N	9070 N	9600 N	10300 N

#### Shear values, $F_q$ (N) with sealing washer $\varnothing$ 16 mm



#### $F_q$ (N)

Member I	Member II	$F_q$
0.63 mm	0.75 mm	2090 N
0.63 mm	1.00 mm	3260 N
0.63 mm	1.50 mm	3260 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

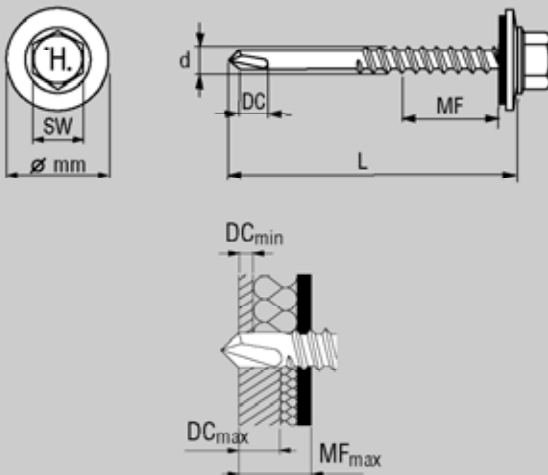
Screwdriver:	Hilti ST2500, Hilti ST1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD <sup>1/8"</sup> :	Item no. 308905

**S-MD51 LZ** galvanized, case-hardened, carbon steel self-drilling screw, with fitted EPDM sealing washer  $\varnothing$  16 mm and extended drill point.

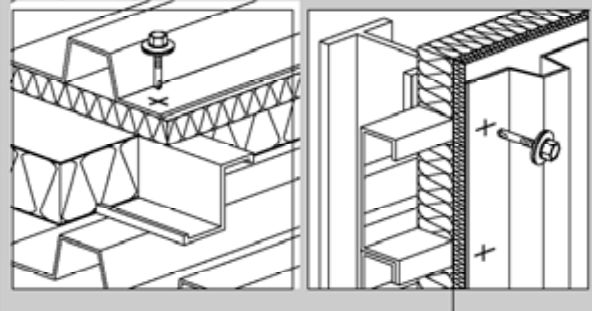
Self-drilling screws with colored head and sealing washer; other special colors available on request.

### Uses on siding:

Fastening trapezoidal profile metal sheets with intermediate insulating layer to steel sections.



### Examples of applications:



### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	RAL color	Package contents	Ordering designation	Item no.
1.2-2.75	13	4.8x38	16	8		250	S-MD51 LZ 4.8x38	252801

### RAL colors available immediately from stock

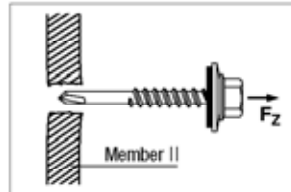
1.2-2.75	13	4.8x38	16	8	1002 sand yellow	250	S-MD51 LZ 4.8x38 PB 02	309220
1.2-2.75	13	4.8x38	16	8	1015 light ivory	250	S-MD51 LZ 4.8x38 PB 15	258793
1.2-2.75	13	4.8x38	16	8	1019 gray beige	250	S-MD51 LZ 4.8x38 PB 19	309227
1.2-2.75	13	4.8x38	16	8	3000 flame red	250	S-MD51 LZ 4.8x38 PB 00	309225
1.2-2.75	13	4.8x38	16	8	5008 gray blue	250	S-MD51 LZ 4.8x38 PB 08	374757
1.2-2.75	13	4.8x38	16	8	7006 beige gray	250	S-MD51 LZ 4.8x38 PB 06	309226
1.2-2.75	13	4.8x38	16	8	7008 khaki gray	250	S-MD51 LZ 4.8x38 PB 08	258795
1.2-2.75	13	4.8x38	16	8	7022 amber gray	250	S-MD51 LZ 4.8x38 PB 22	258794
1.2-2.75	13	4.8x38	16	8	7032 pebble gray	250	S-MD51 LZ 4.8x38 PB 32	309224
1.2-2.75	13	4.8x38	16	8	8012 red brown	250	S-MD51 LZ 4.8x38 PB 12	374756
1.2-2.75	13	4.8x38	16	8	9002 gray white	250	S-MD51 LZ 4.8x38 PB 02	258792
1.2-2.75	13	4.8x38	16	8	9006 white aluminium	250	S-MD51 LZ 4.8x38 PB 06	258791
1.2-2.75	13	4.8x38	16	8	9010 pure white	250	S-MD51 LZ 4.8x38 PB 10	258790

## Carbon steel self-drilling screw

### Technical data

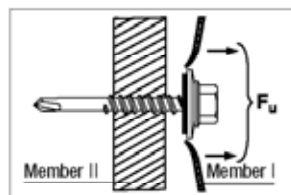
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



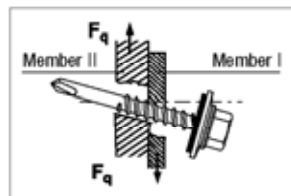
$F_z$ (N)					
Framing					
Member II:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
$F_z$ (N):	600 N	900 N	1300 N	1800 N	2500 N

#### Pull-over values, $F_u$ (N) with sealing washer $\varnothing 16$ mm



$F_u$ (N)					
Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
$F_u$ (N):	4000 N	5400 N	7100 N	9500 N	8500 N

#### Shear values, $F_q$ (N)



$F_q$ (N)		
Member I	Member II	$F_q$
0.63 mm	0.63 mm	1350 N
0.75 mm	0.75 mm	1670 N
0.63 mm	1.00 mm	2400 N
0.63 mm	1.25 mm	3000 N
0.75 mm	1.25 mm	3300 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F$ rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

#### Installation notes

Screwdriver:	Hilti ST 2500, Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

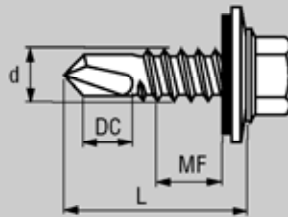
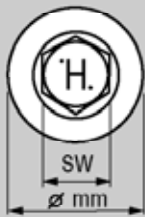
**S-MD 53 Z** galvanized, case-hardened, carbon steel self-drilling screw,  $\varnothing$  4.8 mm, with fitted EPDM sealing washer,  $\varnothing$  16 mm.

Self-drilling screws with colored head and sealing washer; other special colors available on request.

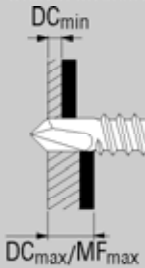


### Uses:

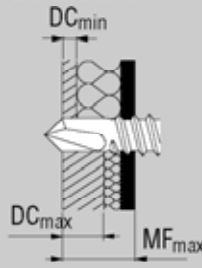
Fastening sheet metal to steel framing, with or without intermediate insulation layers.



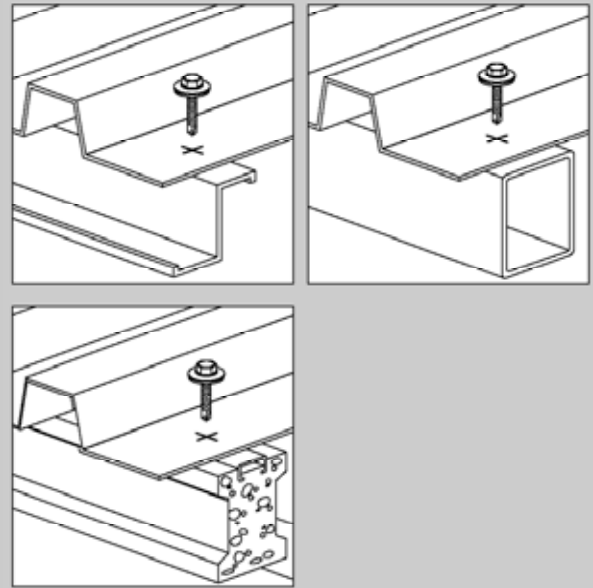
### without insulation



### with insulation



### Examples of applications:



### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	RAL color	Package contents	Ordering designation	Item no.
2.1-4.5	5	4.8x19	16	8		500	<b>S-MD53 Z 4.8x19</b>	219035
2.1-4.5	18	4.8x38	16	8		500	<b>S-MD53 Z 4.8x38</b>	224612

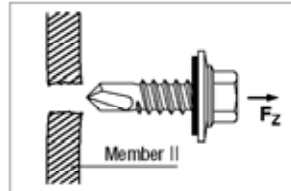
### RAL colors available immediately from stock

2.1-4.5	18	4.8x32	16	8	7032 pebble gray	500	<b>S-MD53 Z 4.8x38 PH 32</b>	235224
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### Technical data

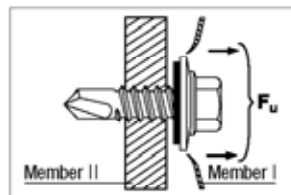
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



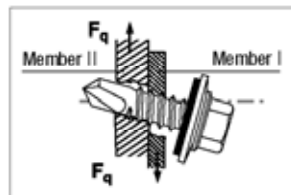
$F_z$ (N)			
Framing			
Member II:	1.5 mm	2 mm	3 mm
$F_z$ for member II:	1660 N	2510 N	4490 N

#### Pull-over values, $F_u$ (N) with sealing washer $\varnothing$ 16 mm



$F_u$ (N)				
Member I:	0.63 mm	0.75 mm	0.88 mm	1.00 mm
$F_u$ :	3860 N	4960 N	6240 N	7500 N

#### Shear values, $F_q$ (N) with sealing washer $\varnothing$ 16 mm



$F_q$ (N)			
Member I	Member II	$F_q$	
0.63 mm	1.5 mm	2260 N	
0.75 mm	2 mm	2950 N	
0.8 mm	2 mm	3430 N	
1.0 mm	3 mm	5940 N	

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST2500, Hilti ST1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD8:	Item no. 308901

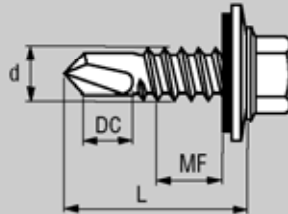
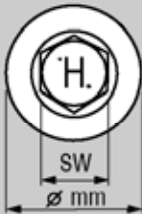
**S-MD 53 Z** self-drilling, case-hardened, galvanized carbon steel screw, Ø 5.5 mm, with fitted EPDM sealing washer, Ø 16 mm.

Self-drilling screws with colored head and sealing washer; other special colors available on request.

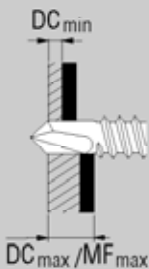


### Uses:

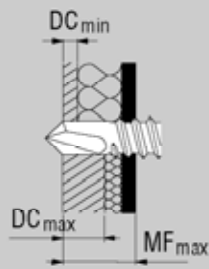
Fastening sheet metal to steel framing, with or without intermediate insulation layers.



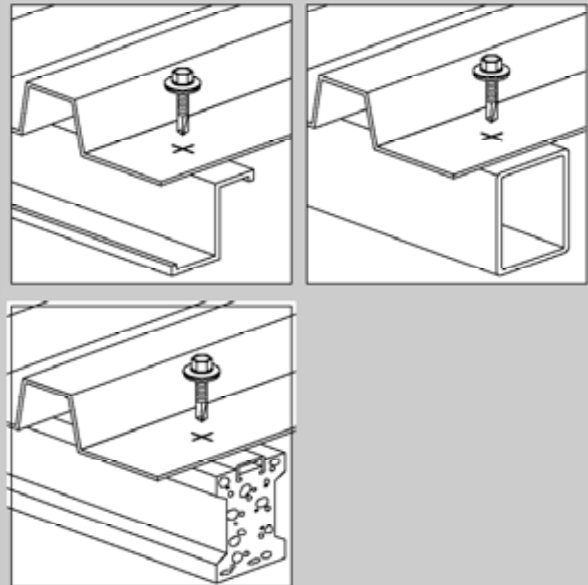
### without insulation



### with insulation



### Examples of applications:



### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer Ø mm	Head size AF	RAL color	Package contents	Ordering designation	Item no.
2.6-5.5	4	5.5 x 19	16	8		500	S-MD 53 Z 5.5 x 19	219036
2.6-5.5	10	5.5 x 25	16	8		500	S-MD 53 Z 5.5 x 25	219037
2.6-5.5	17	5.5 x 32	16	8		500	S-MD 53 Z 5.5 x 32	219038
2.6-5.5	23	5.5 x 38	16	8		250	S-MD 53 Z 5.5 x 38	219039
2.6-5.5	35	5.5 x 50	16	8		250	S-MD 53 Z 5.5 x 50	235105

### RAL colors available immediately from stock

2.6-5.5	10	5.5 x 25	16	8	1015 light ivory	500	S-MD 53 Z 5.5 x 25 PB 15	224639
2.6-5.5	10	5.5 x 25	16	8	9010 pure white	500	S-MD 53 Z 5.5 x 25 PL 10	224636
2.6-5.5	10	5.5 x 25	16	8	7022 amber gray	500	S-MD 53 Z 5.5 x 25 PH 22	224640
2.6-5.5	10	5.5 x 25	16	8	5008 gray blue	500	S-MD 53 Z 5.5 x 25 PF 08	231398
2.6-5.5	10	5.5 x 25	16	8	9002 gray white	500	S-MD 53 Z 5.5 x 25 PL 02	224638
2.6-5.5	10	5.5 x 25	16	8	9006 white aluminium	500	S-MD 53 Z 5.5 x 25 PL 06	224637
2.6-5.5	10	5.5 x 25	16	8	8012 red brown	500	S-MD 53 Z 5.5 x 25 PK 12	235228

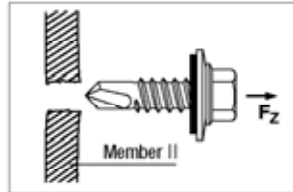


## Carbon steel self-drilling screw

### Technical data

#### Pull-out values, $F_z$ (N)

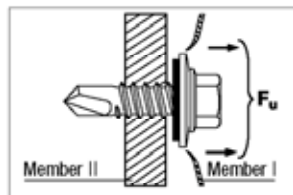
Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



$F_z$ (N)			
Framing member II:	2 mm	3 mm	4 mm
$F_z$ for member II:	3030 N	5310 N	7240 N

#### Pull-over values, $F_u$ (N)

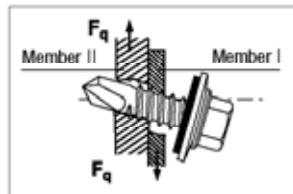
with sealing washer  
Ø 16 mm



$F_u$ (N)			
Member I:	0.63 mm	0.75 mm	1.00 mm
$F_u$ (N):	4760 N	5890 N	8390 N

#### Shear values, $F_q$ (N)

with sealing washer  
Ø 16 mm



$F_q$ (N)			
Member I	Member II	$F_q$	
0.63 mm	2 mm	3050 N	
0.75 mm	3 mm	3800 N	
1.00 mm	2 mm	4900 N	
1.00 mm	4 mm	5350 N	

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$\nu_Z = 2.0$	$\nu_U = 3.0$	$\nu_Q = 2.0$
Load, $F$ rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $\nu_Z$ ,  $\nu_U$  and  $\nu_Q$  must be observed.

### Installation notes

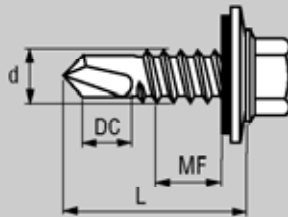
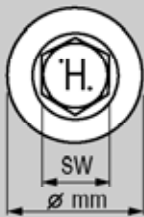
Screwdriver:	Hilti ST2500, Hilti ST1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

**S-MD 53 Z** galvanized, case-hardened, carbon steel self-drilling screw  $\varnothing$  6.3 mm, with fitted EPDM sealing washer,  $\varnothing$  16 mm. Colored screws available on request.

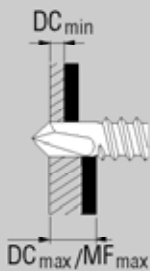


### Uses:

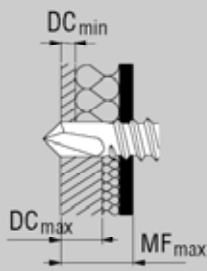
Fastening sheet metal to steel framing, with or without intermediate insulation layers.



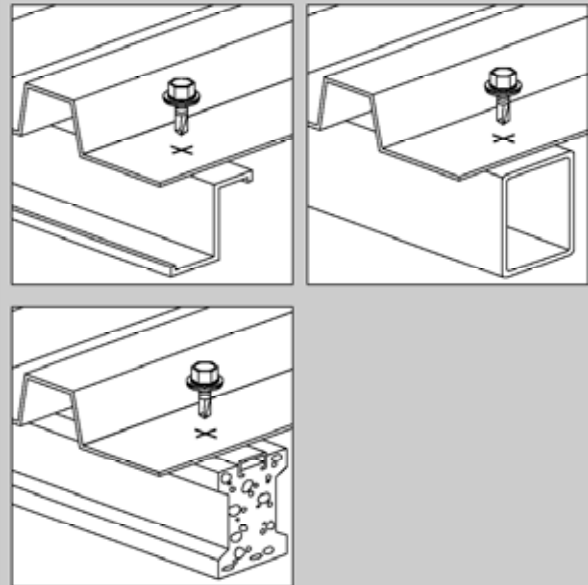
### without insulation



### with insulation



### Examples of applications:



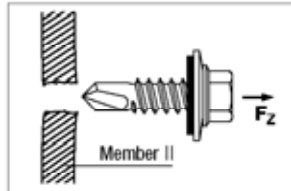
### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer Ø mm	Head size AF	Package contents	Ordering designation	Item no.
2.6-6	4	6.3 x 19	16	1/8"	500	S-MD 53 Z 6.3 x 19	219040
2.6-6	10	6.3 x 25	16	1/8"	500	S-MD 53 Z 6.3 x 25	219041
2.6-6	17	6.3 x 32	16	1/8"	500	S-MD 53 Z 6.3 x 32	219042
2.6-6	23	6.3 x 38	16	1/8"	250	S-MD 53 Z 6.3 x 38	219043
2.6-6	35	6.3 x 50	16	1/8"	250	S-MD 53 Z 6.3 x 50	219044

## Carbon steel self-drilling screw

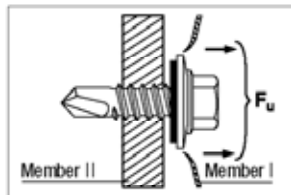
### Technical data

#### Pull-out values, $F_z$ (N) Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



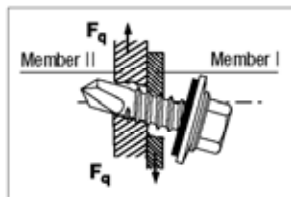
$F_z$ (N)			
Framing member II:	2 mm	3 mm	4 mm
$F_z$ for member II:	3130 N	5600 N	7240 N

#### Pull-over values, $F_u$ (N) with sealing washer $\varnothing$ 16 mm



$F_u$ (N)			
Member I:	0.63 mm	0.75 mm	1.00 mm
$F_u$ (N):	4900 N	6000 N	8330 N

#### Shear values, $F_q$ (N) with sealing washer $\varnothing$ 16 mm



$F_q$ (N)			
Member I	Member II	$F_q$	
0.63 mm	2 mm	2960 N	
0.75 mm	3 mm	3800 N	
1.00 mm	2 mm	5050 N	
1.00 mm	4 mm	5740 N	

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST2500, Hilti ST1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD <sup>1/8</sup> :	Item no. 308905

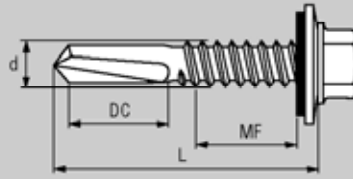
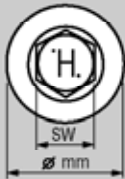
**S-MD 55Z/S-MD 65Z** galvanized, case-hardened, carbon steel self-drilling screw with fitted EPDM sealing washer Ø 16, 19 mm.

Self-drilling screws with colored head and sealing washer; other special colors available on request.

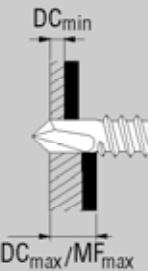


### Uses:

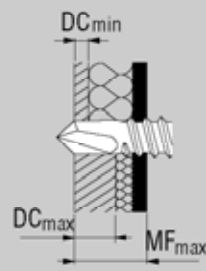
Fastening sheet metal to thick, hot-rolled steel beams, with or without intermediate insulation layers.



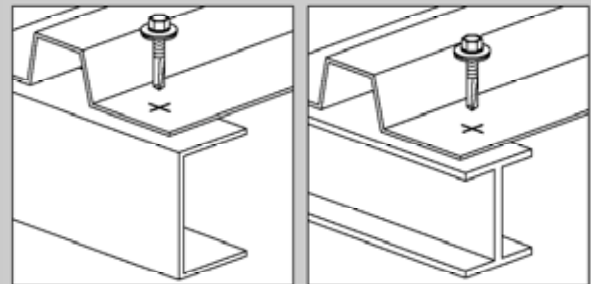
### without insulation



### with insulation



### Examples of applications:



### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer Ø mm	Head size AF	RAL color	Package contents	Ordering designation	Item no.
4.6-12	15	5.5x38	16	8		250	S-MD 55Z 5.5x38	227504
4.6-12	27	5.5x50	16	8		250	S-MD 55Z 5.5x50	219046
4.6-12	40	5.5x63	16	8		100	S-MD 55Z 5.5x63	219048
4.6-12	15	5.5x38	19	8		250	S-MD 65Z 5.5x38	227508

### RAL colors available immediately from stock

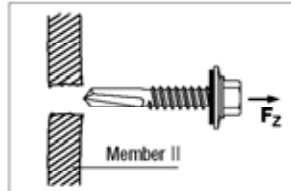
4.6-12	15	5.5x38	16	8	1015 light ivory	250	S-MD 55Z 5.5x38 PB 15	224376
4.6-12	15	5.5x38	16	8	9010 pure white	250	S-MD 55Z 5.5x38 PL 10	224373
4.6-12	15	5.5x38	16	8	7022 amber gray	250	S-MD 55Z 5.5x38 PH 22	224377
4.6-12	15	5.5x38	16	8	5008 gray blue	250	S-MD 55Z 5.5x38 PF 08	374758
4.6-12	15	5.5x38	16	8	9002 gray white	250	S-MD 55Z 5.5x38 PL 02	224375
4.6-12	15	5.5x38	16	8	9006 white aluminium	250	S-MD 55Z 5.5x38 PL 06	224374
4.6-12	15	5.5x38	16	8	8012 red brown	250	S-MD 55Z 5.5x38 PK 12	374759

## Carbon steel self-drilling screw

### Technical data

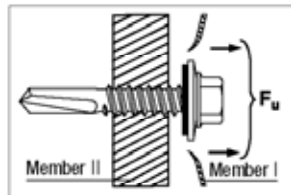
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



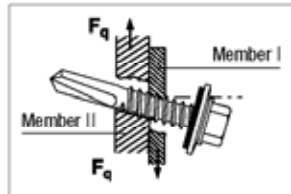
$F_z$ (N)		
Framing member II:	4 mm	6 mm
$F_z$ for member II:	7140 N	7280 N

#### Pull-over values, $F_u$ (N) with sealing washer Ø 16, 19 mm



$F_u$ (N)				
Member I:	0.75 mm	0.88 mm	1.00 mm	1.25 mm
$F_u$ (N):	4380 N	5100 N	5400 N	5970 N

#### Shear values, $F_q$ (N) with sealing washer Ø 16, 19 mm



$F_q$ (N)		
Member I	Member II	$F_q$
0.75 mm	4 mm	3850 N
0.88 mm	4 mm	4410 N
1.00 mm	4 mm	4910 N
1.25 mm	4 mm	7280 N
0.75 mm	6 mm	3850 N
0.88 mm	6 mm	4410 N
1.00 mm	6 mm	4910 N
1.25 mm	6 mm	7280 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec.}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

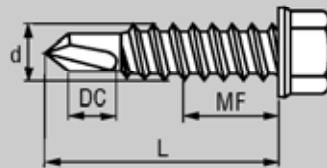
**S-MD 01Z** galvanized, case-hardened, carbon steel self-drilling screw for sheet overlaps, with reduced-diameter drill point.

**S-MD 03Z** galvanized, case-hardened, carbon steel self-drilling screw for sheet overlaps.

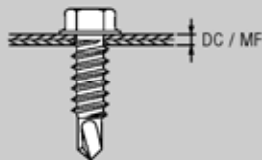


### Uses:

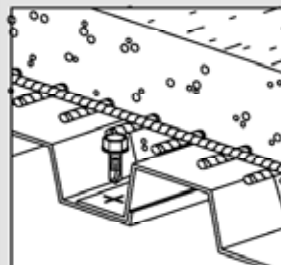
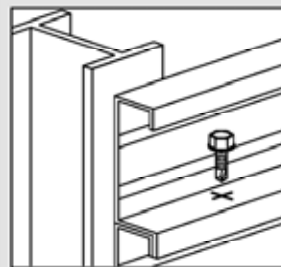
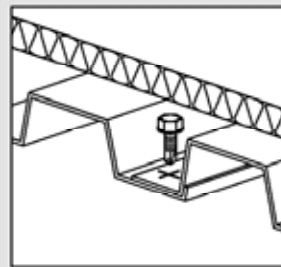
Overlap joints in load-bearing (decking) sheets not exposed to the weather. Fastening liner trays, web joints.



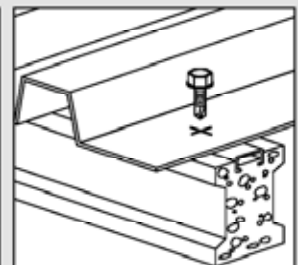
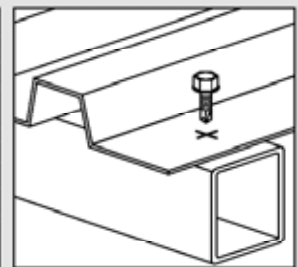
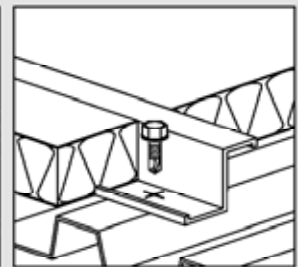
### Sheet metal joints



### Examples of applications for the S-MD 01Z:

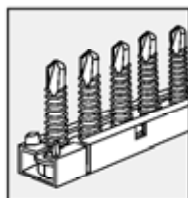


### Examples of applications for the S-MD 03Z:



### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Head size AF	Package contents	Ordering designation	Item no.
1.2-2.75	8.5	4.8x19	8	500	<b>S-MD 01Z 4.8x19</b>	219557
1.2-3	7.5	5.5x19	8	500	<b>S-MD 01Z 5.5x19</b>	219558
1.2-3	7	6.3x19	3/8"	500	<b>S-MD 01Z 6.3x19</b>	219559
2.6-5.5	12	5.5x25	8	500	<b>S-MD 03Z 5.5x25</b>	219019



Collated self-drilling screws can be driven using the SDT 25 stand-up tool and ST 1800 metal construction screwdriver.

### Program

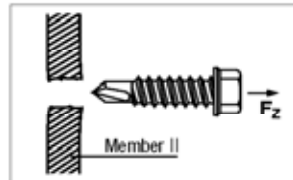
Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Head size AF	Package contents	Ordering designation	Item no.
1.2-2.75	8.5	4.8x19	8	250	<b>S-MD 01Z 4.8x19M</b>	378978
1.2-2.75	7	4.8x22	8	250	<b>S-MD 01 LZ 4.8x22M</b>	284488
2.6-5.5	12	5.5x25	8	250	<b>S-MD 03Z 5.5x25M</b>	378979

## Carbon steel self-drilling screw

### Technical data

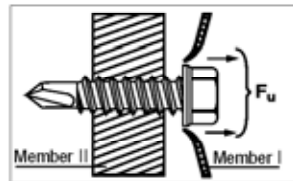
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST37) (370 N/mm<sup>2</sup>)



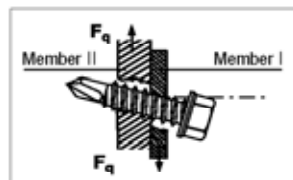
Fz (N)					
Framing	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
Member II:					
MD01Z 4.8 19 Fz	760 N	1000 N	1620 N	2120 N	2500 N
MD01Z 6.3 19 Fz	900 N	1160 N	1730 N	2370 N	3060 N
MD03Z 5.5 25 Fz	2.00 mm	3.00 mm	4.00 mm		
	2770 N	4940 N	6940 N		

#### Pull-over values, $F_u$ (N)



Fu (N)						
Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm	2.00 mm
Fu in N 4.8:	1990 N	3070 N	5180 N			
Fu in N 5.5:	2500 N	3320 N	5300 N	7650 N	10300 N	10300 N
Fu in N 6.3:	2800 N	3560 N	6400 N			

#### Shear values, $F_q$ (N)



Fq (N)			
	Member I	Member II	Fq
MD01Z 4.8 19	0.63 mm	0.63 mm	1400 N
	0.75 mm	0.75 mm	1800 N
	1.00 mm	1.00 mm	2980 N
MD03Z 5.5 25		3.00 mm	2600 N
		0.75 mm	3660 N
		1.00 mm	4510 N
		3.00 mm	6450 N
		4.00 mm	6450 N
		1.25 mm	2.00 mm
		3.00 mm	7360 N
		4.00 mm	8200 N
	1.50 mm	2.00 mm	6170 N
		3.00 mm	8260 N
		4.00 mm	10000 N
	2.00 mm	2.00 mm	7790 N
		3.00 mm	9430 N
MD01Z 6.3 19	0.63 mm	0.63 mm	1540 N
	0.75 mm	0.75 mm	2300 N
	1.00 mm	1.00 mm	3430 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, F rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST1800
Torque settings $\varnothing$ 4.8:	3–5
$\varnothing$ 5.5:	6–8
$\varnothing$ 6.3:	8–10
Drive without depth gauge. Cut-out controlled by torque clutch	
S-MD01Z 4.8x19 + S-MD03Z 5.5x25:	
Nut set driver S-NSD 8:	Item no. 308901
S-MD01Z 6.3x19:	
Nut set driver S-NSD 1/8":	Item no. 308905

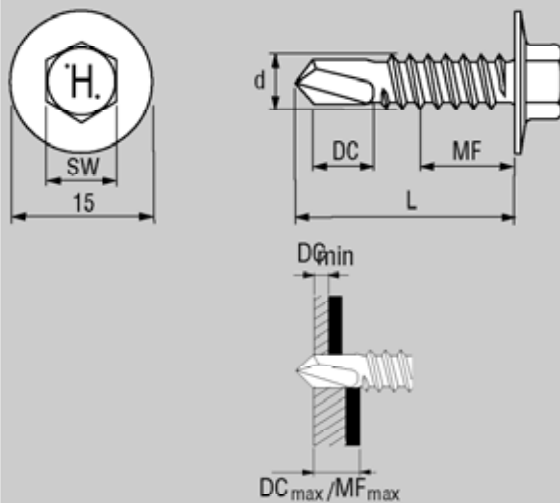
Stand-up tool with screwdriver	Hilti SDT 25, ST 1800
Torque settings $\varnothing$ 4.8:	3–5
$\varnothing$ 5.5:	6–8
Drive without depth gauge. Cut-out controlled by torque clutch	
Bit holder S-BH 435DT:	Item no. 304415
S-NS D8 nut set driver:	Item no. 304413

**S-MD 21 Z/S-MD 23 Z/S-MD 25 Z** galvanized, case-hardened, carbon steel self-drilling screw with pressed-on flange.

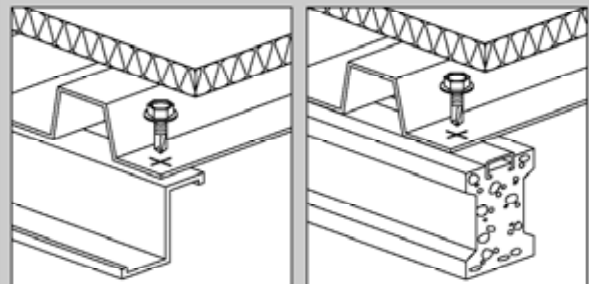
**S-MD 2310 Y** galvanized and yellow chromated, case-hardened, carbon steel self-drilling screw with pressed-on flange.

### Uses:

Fastening supporting decking sheets to steel framing. Screw with pressed-on flange, particularly suitable for highly-stressed fastenings, e.g. roofing sheets on insulated (built-up) roofs.

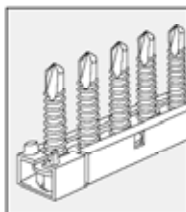


### Examples of applications:



### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Head size AF	Package contents	Ordering designation	Item no.
1.2-3	15	5.5 x 25	8	500	S-MD 21 Z 5.5 x 25	234588
2.6-5.5	10	5.5 x 22	8	500	S-MD 23 Z 5.5 x 22	234590
2.6-6	6	6.3 x 19	10	500	S-MD 23 Z 6.3 x 19	025541
2.6-6	9	6.3 x 22	10	500	S-MD 2310 Y 6.3 x 22	257731
2.6-6	12	6.3 x 25	10	500	S-MD 23 Z 6.3 x 25	025543
2.6-6	42	6.3 x 55	10	250	S-MD 23 Z 6.3 x 55	374755
4.6-12	18	5.5 x 38	8	500	S-MD 25 Z 5.5 x 38	234598



Collated self-drilling screws can be driven using the SDT 25-15 stand-up tool in conjunction with the ST 1800 metal construction screwdriver.

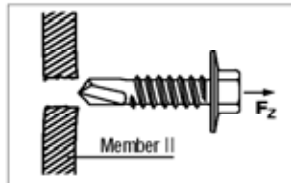
### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Head size AF	Package contents	Ordering designation	Item no.
2.6-6	9	6.3 x 22	10	200	S-MD 2310 Y 6.3 x 22M	284487



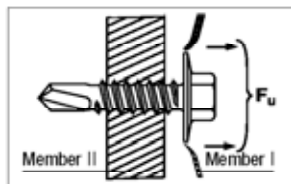
### Technical data

#### Pull-out values, $F_z$ (N) Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



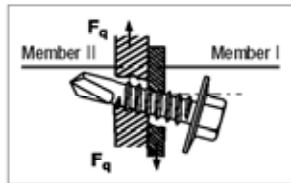
$F_z$ (N)						
Framing						
Member II:	2.0 mm	3.0 mm	4.0 mm	5.0 mm	6.0 mm	
S-MD21Z Ø 5.5	3600 N	–	–	–	–	–
S-MD23Z Ø 5.5	3000 N	4800 N	6800 N	–	–	–
S-MD25Z Ø 5.5	–	–	6200 N	6500 N	6800 N	–
S-MD23Z Ø 6.3	3000 N	5200 N	7200 N	–	–	–
S-MD2310Y Ø 6.3	3000 N	5200 N	7200 N	–	–	–

#### Pull-over values, $F_u$ (N) with pressed-on flange Ø 15 mm



$F_u$ (N)						
Framing						
Member I:	0.63 mm	0.75 mm	0.88 mm	1.00 mm	1.25 mm	
S-MD21Z Ø 5.5	2400 N	3300 N	4200 N	5400 N	6900 N	–
S-MD23Z Ø 5.5	2400 N	3300 N	4200 N	5800 N	8400 N	–
S-MD25Z Ø 5.5	2700 N	3600 N	4500 N	5800 N	8400 N	–
S-MD23Z Ø 6.3	3300 N	4200 N	5100 N	6000 N	8700 N	–
S-MD2310Y Ø 6.3	3300 N	4200 N	5100 N	6000 N	8700 N	–

#### Shear values, $F_q$ (N) with pressed-on flange Ø 15 mm



$F_q$ (N)			
	Member I	Member II	$F_{c1}$
S-MD21Z Ø 5.5	0.63 mm	1.50 mm	2200 N
	0.75 mm	2.00 mm	3800 N
	0.88 mm	2.00 mm	4200 N
S-MD23Z Ø 5.5	0.63 mm	2.00 mm	3000 N
	0.75 mm	3.00 mm	3600 N
	0.88 mm	4.00 mm	4600 N
S-MD25Z Ø 5.5	0.63 mm	5.00 mm	3800 N
	0.75 mm	6.00 mm	4800 N
	0.88 mm	6.00 mm	5600 N
S-MD23Z Ø 6.3	0.63 mm	2.00 mm	3000 N
	0.75 mm	3.00 mm	3600 N
	0.88 mm	4.00 mm	4400 N
S-MD2310Y Ø 6.3	0.63 mm	2.00 mm	3000 N
	0.75 mm	3.00 mm	3600 N
	0.88 mm	4.00 mm	4400 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_z = 2.0$	$v_u = 3.0$	$v_q = 2.0$
Load, $F_{rec}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_z$ ,  $v_u$  and  $v_q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST1800	
Torque settings:	S-MD21Z Ø 5.5	6–8
	S-MD23Z Ø 5.5	6–8
	S-MD25Z Ø 5.5	4–6
	S-MD23Z Ø 6.3	8–10
	S-MD2310Y Ø 6.3	8–10
Drive without depth gauge.		
Cut-out controlled by torque clutch.		
Nut set driver: S-NSD 8	Item no. 308901	
S-NSD 10	Item no. 308902	

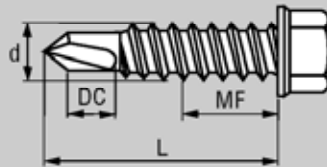
Stand-up tool with screwdriver	Hilti SDT25-15, ST1800
Torque settings Ø 6.3:	8–10
Drive without depth gauge.	
Cut-out controlled by torque clutch	
Bit holder S-BH 435DT:	Item no. 304415
Nut set driver S-NSD 10 DT:	Item no. 284485

**S-MD 01 Z/S-MD 03 Z/S-MD 05 Z** galvanized, case-hardened, carbon steel self-drilling screw.  
**S-MD 01 Y** galvanized and yellow chromated, case-hardened, carbon steel self-drilling screw.

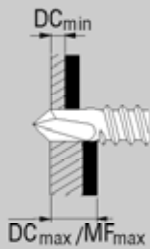


### Uses:

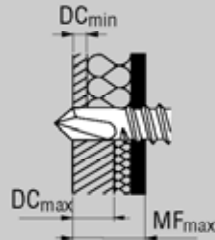
Fastening steel sections and sheet steel to steel framing, with or without insulating material.



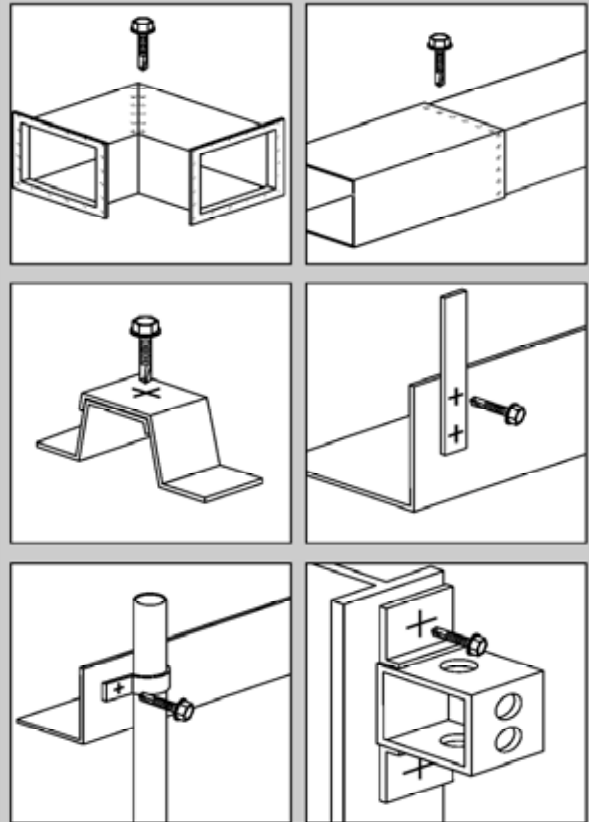
### without insulation



### with insulation



### Examples of applications:



### Program

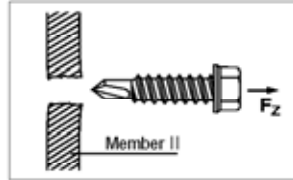
Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (dxL) mm	Head size AF	Package contents	Ordering designation	Item no.
1.2-2.50	4.5	4.2x13	7	1000	S-MD 01 Z 4.2x13	224500
1.2-2.50	7.5	4.2x16	7	1000	S-MD 01 Z 4.2x16	010405
1.2-2.75	3.5	4.8x13	8	1000	S-MD 01 Z 4.8x13	224501
1.2-2.75	6.5	4.8x16	8	500	S-MD 01 Y 4.8x16	257732*
1.2-2.75	8.5	4.8x19	8	500	S-MD 01 Z 4.8x19	219557
1.2-3.00	7.5	5.5x19	8	500	S-MD 01 Z 5.5x19	219558
1.2-3.00	7	6.3x19	3/8"	500	S-MD 01 Z 6.3x19	219559
2.1-3.50	7	4.2x16	7	1000	S-MD 03 Z 4.2x16	219013*
2.1-4.50	7	4.8x16	8	500	S-MD 03 Z 4.8x16	219015
2.1-4.50	10	4.8x19	8	500	S-MD 03 Z 4.8x19	219016
2.6-5.50	6	5.5x19	8	500	S-MD 03 Z 5.5x19	219018
2.6-5.50	12	5.5x25	8	500	S-MD 03 Z 5.5x25	219019
2.6-5.50	19	5.5x32	8	500	S-MD 03 Z 5.5x32	219020
2.6-5.50	25	5.5x38	8	500	S-MD 03 Z 5.5x38	219021
2.6-6.00	6	6.3x19	3/8"	500	S-MD 03 Z 6.3x19	219022
2.6-6.00	12	6.3x25	3/8"	500	S-MD 03 Z 6.3x25	219023
2.6-6.00	19	6.3x32	3/8"	500	S-MD 03 Z 6.3x32	219024
2.6-6.00	37	6.3x50	3/8"	250	S-MD 03 Z 6.3x50	219026
4.6-12.00	18	5.5x38	8	250	S-MD 05 Z 5.5x38	219030
4.6-12.00	30	5.5x50	8	250	S-MD 05 Z 5.5x50	219028
4.6-12.00	43	5.5x63	8	250	S-MD 05 Z 5.5x63	219031

\* No approval

## Carbon steel self-drilling screw

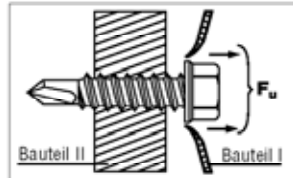
### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



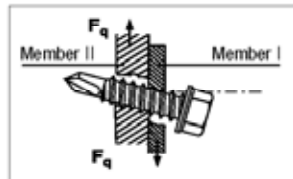
$F_z$ (N)		Framing					
Member II:	0.63mm	0.75mm	1mm	1.25mm	15mm	2mm	
MD 01Z Ø 4.2	930 N	1160 N	1670 N	2210 N	2750 N	–	
MD 01Z Ø 4.8	760 N	1000 N	1620 N	2120 N	2500 N	2500 N	
MD 01Y Ø 4.8	760 N	1000 N	1620 N	2120 N	2500 N	2500 N	
MD 01Z Ø 5.5	900 N	1160 N	1750 N	2400 N	3120 N	4680 N	
MD 01Z Ø 6.3	900 N	1160 N	1730 N	2370 N	3060 N	4580 N	
MD 03Z Ø 4.2	–	–	–	1000 N	1600 N	2600 N	
$F_z$ (N)		Framing					
Member II:	1.5mm	2mm	3mm	4mm	6mm	8mm	
MD 03Z Ø 4.8	1660 N	2510 N	4490 N	–	–	–	
MD 03Z Ø 5.5	–	2770 N	4940 N	6940 N	–	–	
MD 03Z Ø 6.3	–	2880 N	5350 N	7220 N	–	–	
MD 05Z Ø 5.5	–	–	–	7140 N	7280 N	7380 N	

### Pull-over values, $F_u$ (N)



$F_u$ (N)		0.63 mm	0.75 mm	0.88 mm	1.00 mm	1.25 mm
Member I:						
MD 01Z Ø 4.2	2050 N	2930 N	4060 N	5270 N	5270 N	
MD 01Z Ø 4.8	1990 N	3070 N	4120 N	5180 N	5700 N	
MD 01Y Ø 4.8	1990 N	3070 N	4120 N	5180 N	5700 N	
MD 01Z Ø 5.5	2600 N	3450 N	4350 N	5250 N	7650 N	
MD 01Z Ø 6.3	2800 N	3560 N	4430 N	6400 N	9600 N	
MD 03Z Ø 4.2	3000 N	3500 N	4000 N	4500 N	5500 N	
MD 03Z Ø 4.8	2350 N	3310 N	4530 N	5820 N	7400 N	
MD 03Z Ø 5.5	2500 N	3320 N	4300 N	5300 N	7650 N	
MD 03Z Ø 6.3	2810 N	3840 N	5120 N	6430 N	9600 N	
MD 05Z Ø 5.5	2290 N	2730 N	3200 N	3630 N	4540 N	

### Shear values, $F_q$ (N)



$F_q$ (N)		Member I	Member II	$F_q$
MD 01Z Ø 4.2		0.63 mm	0.63 mm	1540 N
		0.75 mm	0.75 mm	2110 N
		1.00 mm	1.00 mm	3600 N
MD 01Z Ø 4.8		0.63 mm	0.63 mm	1400 N
		0.75 mm	0.75 mm	1800 N
		1.00 mm	1.00 mm	2980 N
MD 01Z Ø 5.5		0.63 mm	0.63 mm	1550 N
		0.75 mm	0.75 mm	2020 N
		1.00 mm	1.00 mm	3240 N
MD 01Z Ø 6.3		0.63 mm	0.63 mm	1540 N
		0.75 mm	0.75 mm	2300 N
		1.00 mm	1.00 mm	3430 N
MD 03Z Ø 4.2		0.63 mm	1.25 mm	2200 N
		0.75 mm	1.50 mm	2700 N
		1.00 mm	1.50 mm	3200 N
		1.00 mm	2.00 mm	3700 N
MD 03Z Ø 4.8		0.63 mm	1.50 mm	2260 N
		0.75 mm	2.00 mm	2950 N
		1.00 mm	1.50 mm	2910 N
		1.00 mm	3.00 mm	5940 N
MD 03Z Ø 5.5		0.63 mm	2.00 mm	2600 N
		0.75 mm	3.00 mm	3660 N
		1.00 mm	2.00 mm	4510 N
		1.00 mm	4.00 mm	6450 N
MD 03Z Ø 6.3		0.63 mm	2.00 mm	3140 N
		0.75 mm	3.00 mm	4150 N
		1.00 mm	2.00 mm	5540 N
		1.00 mm	4.00 mm	6600 N
MD 05Z Ø 5.5		0.75 mm	4.00 mm	3420 N
		0.88 mm	4.00 mm	4180 N
		1.00 mm	4.00 mm	4920 N
		1.25 mm	4.00 mm	6520 N
		0.75 mm	6.00 mm	3420 N
		0.88 mm	6.00 mm	4180 N
		1.00 mm	6.00 mm	4920 N
	1.25 mm	6.00 mm	6520 N	

The values are based on members I and II shifting by 3 mm.

## Carbon steel self-drilling screw

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, F rec.	$F_Z / 2.0$	$F_U / 3.0$	$F_Q / 2.0$

Each recommended load is applicable only to one force  $F_Z$ ,  $F_U$  or  $F_Q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver: Hilti ST1800

#### Torque settings:

S-MD01Z / S-MD03Z Ø 4.2	1– 3
S-MD01Z / S-MD03Z Ø 4.8	3– 5
S-MD01Z / S-MD03Z Ø 5.5	6– 8
S-MD01Z / S-MD03Z Ø 6.3	8–10
S-MD05Z Ø 5.5	8–10

Drive without depth gauge.

Cut-out controlled by torque clutch

Nut set driver: S-NSD 7	Item no. 308900
S-NSD 8	Item no. 308901
S-NSD 3/8"	Item no. 308905

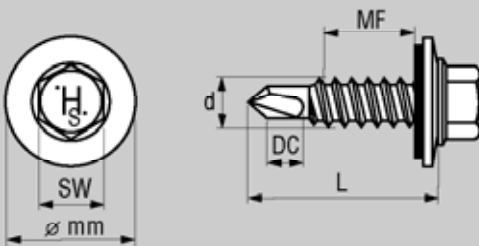
## Stainlee steel self-drilling screw

**S-MD51 S/S-MD61 S** stainless steel self-drilling screw with hardened carbon steel drill point and thread start, reduced-diameter drill point for higher pull-out values and fitted EPDM sealing washer  $\varnothing$  16 or 19 mm. Colored screws available on request.

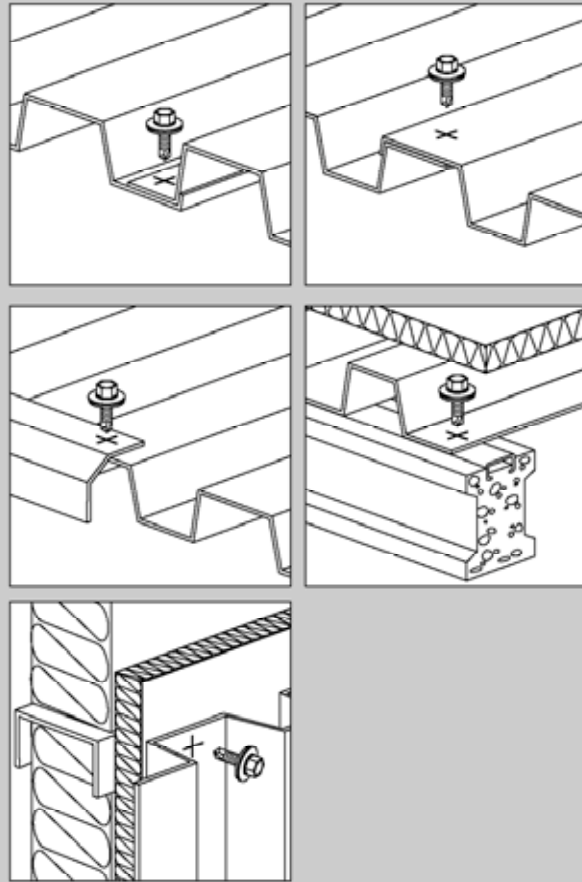


### Uses:

Fastening sheet metal to sheet metal, with or without intermediate insulation layer. For corrosion-resistant and watertight joints.



### Examples of applications:



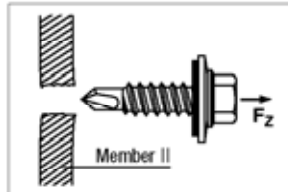
### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	Package contents	Ordering designation	Item no.
1.25-2.0	6.0	4.8x22	16	8	500	S-MD51 S 4.8x22	375228
1.25-2.0	9.0	4.8x25	16	8	500	S-MD51 S 4.8x25	375229
1.25-3.0	8.0	5.5x25	16	8	500	S-MD51 S 5.5x25	378257
1.25-3.0	15.0	5.5x32	16	8	250	S-MD51 S 5.5x32	375230
1.25-3.0	21.0	5.5x38	16	8	250	S-MD51 S 5.5x38	375231
1.25-3.0	33.0	5.5x50	16	8	250	S-MD51 S 5.5x50	375232
1.25-2.0	6.0	4.8x22	19	8	500	S-MD61 S 4.8x22	283052

### Technical data

#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



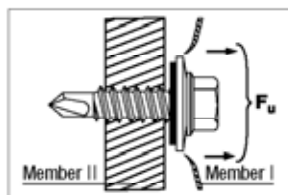
#### $F_z$ (N)

Framing

Member II:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	150 mm
$F_z$ in N Ø 4.8:	820 N	1060 N	1590 N	2190 N	
Ø 5.5:	750 N	970 N	1470 N	2040 N	2660 N

#### Pull-over values, $F_u$ (N)

with sealing washer  
Ø 16, 19 mm

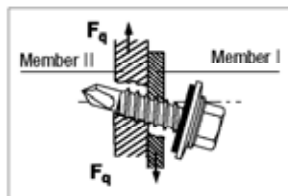


#### $F_u$ (N)

Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	150 mm
$F_u$ in N Ø 4.8:	4580 N	5430 N	7190 N	8940 N	
Ø 5.5:	4390 N	5250 N	7060 N	8870 N	10700 N

#### Shear values, $F_q$ (N)

with sealing washer  
Ø 16, 19 mm



#### $F_q$ (N)

Member I	Member II	Ø 4.8 $F_{q0}$	Ø 5.5 $F_{q0}$
0.63 mm	0.63 mm	1420 N	1010 N
0.75 mm	0.75 mm	1880 N	1500 N
0.63 mm	1.00 mm	2340 N	2480 N
0.63 mm	1.25 mm	2340 N	3230 N
0.75 mm	1.25 mm	2600 N	3530 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST 2500, Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

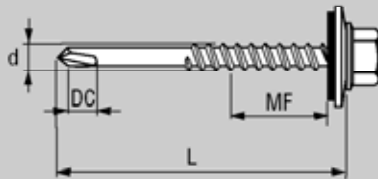
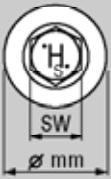
## Stainless steel self-drilling screw

**S-MD51LS/S-MD61LS/S-MD71LS** stainless steel self-drilling screw with hardened carbon steel drill point and thread start, with fitted EPDM sealing washer  $\varnothing$  16, 19 or 22 mm. Colored screws available on request.

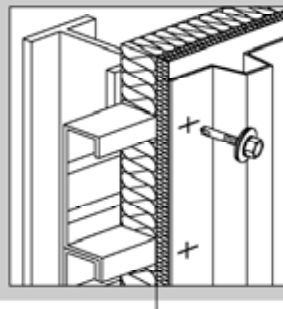


### Uses:

Fastening trapezoidal metal sheets to liner trays.  
For corrosion-resistant and watertight joints.



### Examples of applications:



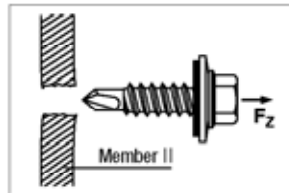
### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer Ø mm	Head size AF	Package contents	Ordering designation	Item no.
1.8-4.0	5.0	5.5x25	16	8	500	S-MD51LS 5.5x25	378258
1.8-4.0	5.0	5.5x25	19	8	500	S-MD61LS 5.5x25	283058
1.8-4.0	5.0	5.5x25	22	8	500	S-MD71LS 5.5x25	285596

### Technical data

#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)

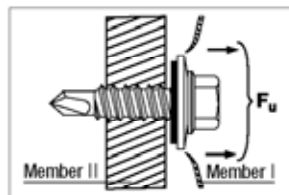


#### $F_z$ (N)

Framing

2 X member II:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
$F_z$ (N):	1680 N	2100 N	3010 N	4000 N	4000 N

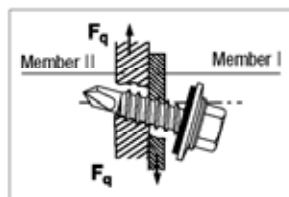
#### Pull-over values, $F_u$ (N) with sealing washer Ø 16, 19, 22 mm



#### $F_u$ (N)

Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.50 mm
$F_u$ (N):	4300 N	5640 N	8790 N	12400 N	12400 N

#### Shear values, $F_q$ (N) with sealing washer Ø 16, 19, 22 mm



#### $F_q$ (N)

Member I	Member II	$F_q$
0.63 mm	0.63 mm	2620 N
0.75 mm	0.75 mm	3260 N
0.63 mm	1.00 mm	3300 N
0.63 mm	1.25 mm	3710 N
0.75 mm	1.25 mm	4090 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

#### Installation notes

Screwdriver:	Hilti ST 2500, Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901



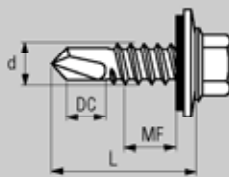
## Stainless steel self-drilling screw

**S-MD 53 S/S-MD 63 S/S-MD 73 S** stainless steel self-drilling screw with hardened carbon steel drill point and thread start, with fitted EPDM sealing washer  $\varnothing$  16, 19 or 22 mm. Colored screws available on request.

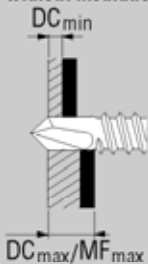


### Uses:

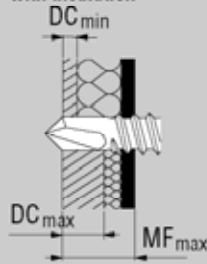
Fastening sheet metal to steel framing, with or without intermediate insulation layers. For corrosion-resistant and watertight joints.



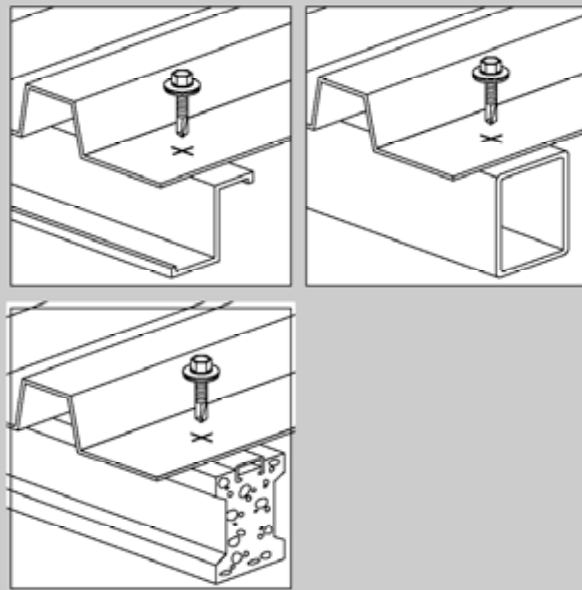
### without insulation



### with insulation



### Examples of applications:

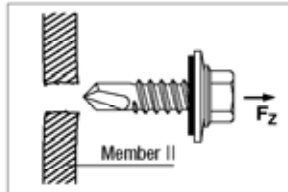


### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	Package contents	Ordering designation	Item no.
2.1-5.5	8	5.5x25	16	8	500	S-MD 53 S 5.5x25	375233
2.1-5.5	15	5.5x32	16	8	250	S-MD 53 S 5.5x32	375234
2.1-5.5	21	5.5x38	16	8	250	S-MD 53 S 5.5x38	375235
2.1-5.5	33	5.5x50	16	8	250	S-MD 53 S 5.5x50	375236
2.1-5.5	46	5.5x63	16	8	100	S-MD 53 S 5.5x63	375237
2.1-5.5	8	5.5x25	19	8	500	S-MD 63 S 5.5x25	283059
2.1-5.5	15	5.5x32	19	8	250	S-MD 63 S 5.5x32	283060
2.1-5.5	21	5.5x38	19	8	250	S-MD 63 S 5.5x38	283061
2.1-5.5	33	5.5x50	19	8	250	S-MD 63 S 5.5x50	283062
2.1-5.5	46	5.5x63	19	8	100	S-MD 63 S 5.5x63	283063
2.1-5.5	8	5.5x25	22	8	500	S-MD 73 S 5.5x25	285597
2.1-5.5	15	5.5x32	22	8	250	S-MD 73 S 5.5x32	285598
2.1-5.5	21	5.5x38	22	8	250	S-MD 73 S 5.5x38	285599
2.1-5.5	33	5.5x50	22	8	250	S-MD 73 S 5.5x50	285600
2.1-5.5	46	5.5x63	22	8	100	S-MD 73 S 5.5x63	285601
2.1-6.0	7	6.3x25	16	8	500	S-MD 53 S 6.3x25	375238
2.1-6.0	7	6.3x25	19	8	500	S-MD 63 S 6.3x25	283064
2.1-6.0	7	6.3x25	22	8	500	S-MD 73 S 6.3x25	285602

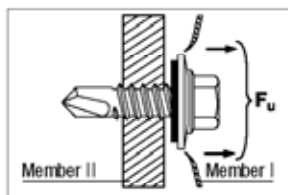
### Technical data

#### Pull-out values, $F_z$ (N) Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



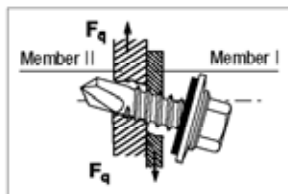
$F_z$ (N)			
Framing member II:	2 mm	3 mm	4 mm
$F_z$ from member II $\varnothing$ 5.5:	3020 N	5220 N	7680 N
$\varnothing$ 6.3:	3060 N	5730 N	8240 N

#### Pull-over values, $F_u$ (N) with sealing washer $\varnothing$ 16, 19, 22 mm



$F_u$ (N)			
Member I:	0.63 mm	0.75 mm	1.00 mm
$F_u$ in N $\varnothing$ 5.5:	4190 N	4980 N	6610 N
$\varnothing$ 6.3:	5110 N	6000 N	7830 N

#### Shear values, $F_q$ (N) with sealing washer $\varnothing$ 16, 19, 22 mm



$F_q$ (N)			
Member I	Member II	$\varnothing$ 5.5 $F_{q1}$	$\varnothing$ 6.3 $F_{q1}$
0.63 mm	2 mm	2740 N	3010 N
0.75 mm	3 mm	4140 N	5230 N
1.00 mm	2 mm	4750 N	4470 N
1.00 mm	4 mm	5350 N	6300 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST 2500, Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD8:	Item no. 308901

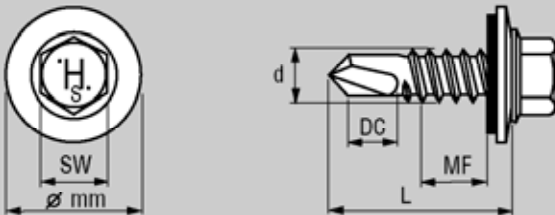
## Stainless steel self-drilling screw

**S-MD 43 S** stainless steel self-drilling screw with hardened carbon steel drill point and thread start, with fitted EPDM sealing washer  $\varnothing$  14 mm.  
Colored screws available on request.

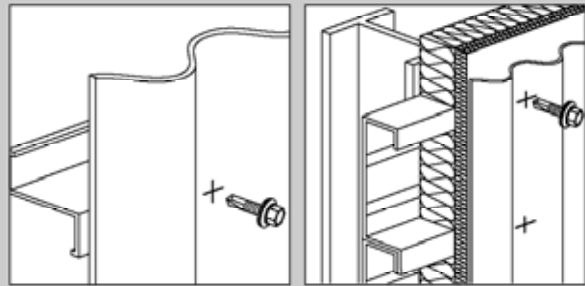


### Uses:

Fastening sheet metal to steel framing, with or without intermediate insulation layers. For corrosion-resistant and watertight joints.



### Examples of applications:

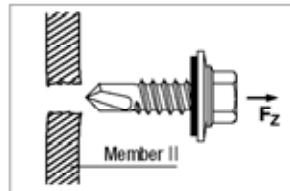


### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	Package contents	Ordering designation	Item no.
2.1-5.5	8	5.5 x 25	14	8	500	<b>S-MD 43 S 5.5 x 25</b>	<b>378259</b>
2.1-5.5	15	5.5 x 32	14	8	500	<b>S-MD 43 S 5.5 x 32</b>	<b>378260</b>
2.1-5.5	21	5.5 x 38	14	8	250	<b>S-MD 43 S 5.5 x 38</b>	<b>378261</b>
2.1-5.5	33	5.5 x 50	14	8	250	<b>S-MD 43 S 5.5 x 50</b>	<b>378262</b>
2.1-5.5	46	5.5 x 63	14	8	100	<b>S-MD 43 S 5.5 x 63</b>	<b>378263</b>

### Technical data

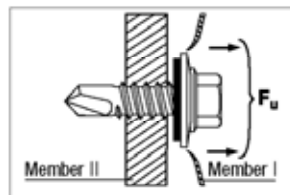
#### Pull-out values, $F_z$ (N) Steel S 235 (ST37) (370 N/mm<sup>2</sup>)



#### $F_z$ (N)

Framing member II:	1.5 mm	2 mm	2.5 mm	3 mm	4 mm
$F_z$ from member II	2070 N	3080 N	4190 N	5350 N	8030 N

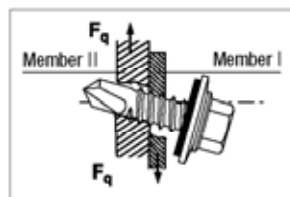
#### Pull-over values, $F_u$ (N) with sealing washer $\varnothing$ 14 mm



#### $F_u$ (N)

Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.5 mm	2.0 mm
$F_u$ (N):	4440 N	5220 N	6840 N	8430 N	10000 N	10000 N

#### Shear values, $F_q$ (N) with sealing washer $\varnothing$ 14 mm



#### $F_q$ (N)

Member I	Member II	$F_q$
0.63 mm	2 mm	2500 N
0.75 mm	3 mm	2900 N
1.00 mm	2 mm	3680 N
1.00 mm	4 mm	5090 N

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F$ rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

Screwdriver:	Hilti ST 2500, Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD8:	Item no. 306901

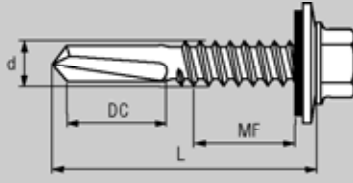
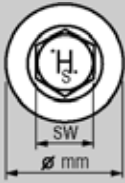
## Stainless steel self-drilling screw

**S-MD 55 S/S-MD 65 S/S-MD 75 S** stainless steel self-drilling screw with hardened carbon steel drill point and thread start, with fitted EPDM sealing washer  $\varnothing$  16, 19 or 22 mm. Colored screws available on request.

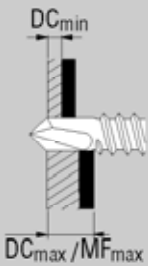


### Uses:

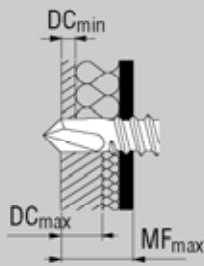
Fastening sheet metal to thick, hot-rolled steel beams, with or without intermediate insulation layers. For corrosion-resistant and watertight joints.



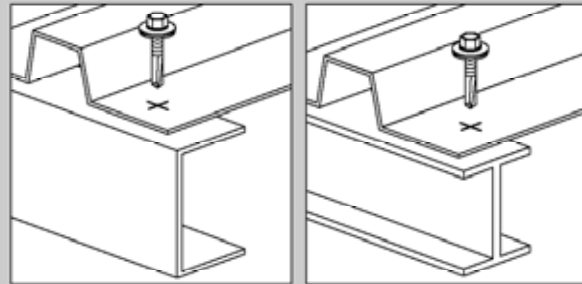
### without insulation



### with insulation



### Examples of applications:



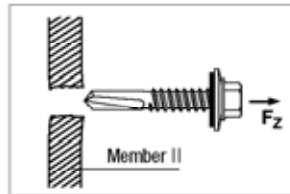
### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	Package contents	Ordering designation	Item no.
4.6-12	12	5.5x45	16	8	250	S-MD 55 S 5.5x45	375239
4.6-12	17	5.5x50	16	8	250	S-MD 55 S 5.5x50	375240
4.6-12	30	5.5x63	16	8	100	S-MD 55 S 5.5x63	375241
4.6-12	47	5.5x80	16	8	100	S-MD 55 S 5.5x80	375242
4.6-12	67	5.5x100	16	8	100	S-MD 55 S 5.5x100	375243
4.6-12	12	5.5x45	19	8	250	S-MD 65 S 5.5x45	283065
4.6-12	17	5.5x50	19	8	250	S-MD 65 S 5.5x50	283066
4.6-12	30	5.5x63	19	8	100	S-MD 65 S 5.5x63	283067
4.6-12	47	5.5x80	19	8	100	S-MD 65 S 5.5x80	283068
4.6-12	67	5.5x100	19	8	100	S-MD 65 S 5.5x100	283069
4.6-12	12	5.5x45	22	8	250	S-MD 75 S 5.5x45	285603
4.6-12	17	5.5x50	22	8	250	S-MD 75 S 5.5x50	285604
4.6-12	30	5.5x63	22	8	100	S-MD 75 S 5.5x63	285605
4.6-12	47	5.5x80	22	8	100	S-MD 75 S 5.5x80	285606
4.6-12	67	5.5x100	22	8	100	S-MD 75 S 5.5x100	285607

### Technical data

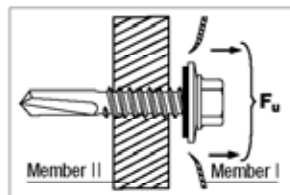
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



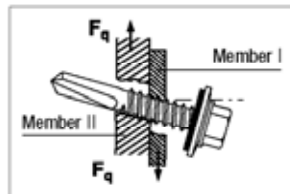
$F_z$ (N)		
Framing member II:	4 mm	6 mm
$F_z$ for member II:	7530 N	9380 N

#### Pull-over values, $F_u$ (N) with sealing washer Ø 16, 19, 22 mm



$F_u$ (N)				
Member I:	0.75 mm	0.88 mm	1.00 mm	1.25 mm
$F_u$ (N):	5380 N	6150 N	6820 N	8170 N

#### Shear values, $F_q$ (N) with sealing washer Ø 16, 19, 22 mm



$F_q$ (N)			
Member I	Member II	$F_c$	
0.75 mm	4 mm	4100 N	
0.88 mm	4 mm	4770 N	
1.00 mm	4 mm	5390 N	
1.25 mm	4 mm	6650 N	
0.75 mm	6 mm	4100 N	
0.88 mm	6 mm	4770 N	
1.00 mm	6 mm	5390 N	
1.25 mm	6 mm	6660 N	

The values are based on members I and II shifting by 3 mm.

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F_{rec.}$	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

### Installation notes

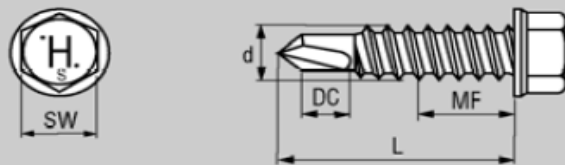
Screwdriver:	Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

## Stainless steel self-drilling screw

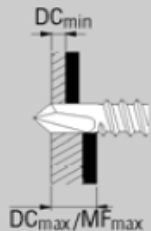
**S-MD01 S/S-MD03 S/S-MD05 S** stainless steel self-drilling screw with hardened carbon steel drill point and thread start.

### Uses:

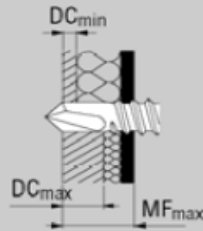
Fastening steel sections and sheet steel to steel framing, with or without insulating material.



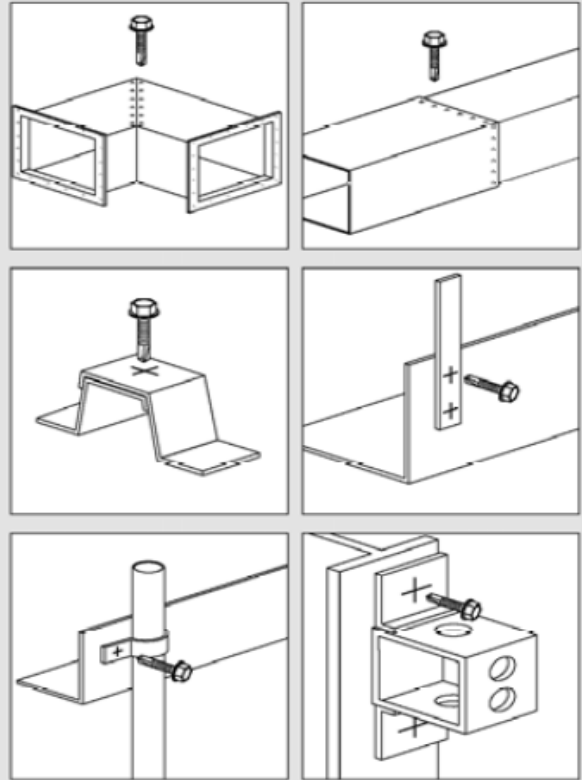
### without insulation



### with insulation



### Examples of applications:



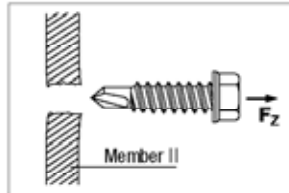
### Program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (D x L) mm	Head size	Package contents	Ordering designation	Item no.
1.25-2.0	9	4.8 x 22	8	500	S-MD01 S 4.8x22	285608
1.8-4	8	5.5 x 25	8	500	S-MD01 LS 5.5x25	285609
2.1-5.5	11	5.5 x 25	8	500	S-MD03 S 5.5x25	285610
2.1-5.5	11	5.5 x 25	8	500	S-MD03 S 5.5x25 (A4)	3409246
2.1-5.5	18	5.5 x 32	8	250	S-MD03 S 5.5x32	285611
2.1-5.5	24	5.5 x 38	8	250	S-MD03 S 5.5x38	285612
2.1-5.5	36	5.5 x 50	8	250	S-MD03 S 5.5x50	285613
2.1-5.5	49	5.5 x 63	8	100	S-MD03 S 5.5x63	285614
2.1-6.0	10	6.3 x 25	8	500	S-MD03 S 6.3x25	285615
4.6-12	15	5.5 x 45	8	250	S-MD05 S 5.5x45	285616
4.6-12	20	5.5 x 50	8	250	S-MD05 S 5.5x50	285617
4.6-12	33	5.5 x 63	8	100	S-MD05 S 5.5x63	285618
4.6-12	50	5.5 x 80	8	100	S-MD05 S 5.5x80	285619
4.6-12	70	5.5 x 100	8	100	S-MD05 S 5.5x100	285620

### Technical data

#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



#### $F_z$ (N)

##### Framing

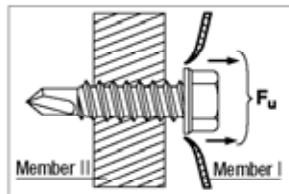
Member II:	0.63 mm	0.75 mm	1 mm	1.25 mm	1.5 mm	2 mm
MD01S 4.8	800 N	1000 N	1400 N	2000 N	-	-
MD01S 5.5	700 N	900 N	1400 N	1900 N	2500 N	3700 N
MD01LS *)	2000 N	2200 N	3100 N	4300 N	4800 N	-

##### Framing

Member II:	1.5 mm	2 mm	3 mm	4 mm	6 mm	8 mm
MD03S 5.5	1700 N	2600 N	4600 N	6000 N	-	-
MD03S 6.3	1400 N	2700 N	5400 N	7200 N	-	-
MD05S 5.5	-	-	-	7530 N	8500 N	9380 N

\*) Load values apply only to double-layer framing material ( e.g. 2x0.63 mm )

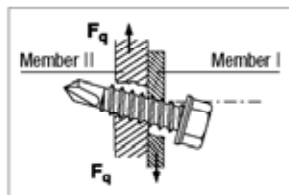
#### Pull-over values, $F_u$ (N)



#### $F_u$ (N)

Member I:	0.63 mm	0.75 mm	1.00 mm	1.25 mm	1.5 mm	2 mm
MD01S 4.8	1790 N	2760 N	4660 N	5130 N	-	-
MD01S 5.5	2340 N	3110 N	4730 N	6890 N	9270 N	-
MD01LS	2340 N	3110 N	4730 N	6890 N	9270 N	-
MD03S 5.5	2250 N	2990 N	4770 N	6890 N	9270 N	9270 N
MD03S 6.3	2520 N	3330 N	5770 N	8640 N	9270 N	9500 N
MD05S 5.5	2060 N	2460 N	3270 N	4090 N	4900 N	6530 N

#### Shear values, $F_q$ (N)



#### $F_q$ (N)

	Member I	Member II	$F_q$
MD01S 4.8	0.63 mm	0.63 mm	900 N
	0.75 mm	0.75 mm	1620 N
	1.00 mm	1.00 mm	2790 N
MD01S 5.5	0.63 mm	0.63 mm	900 N
	0.75 mm	0.75 mm	1620 N
	1.00 mm	1.00 mm	2790 N
MD01LS 5.5	0.63 mm	2x0.63 mm	2160 N
	0.75 mm	2x0.75 mm	2970 N
	1.00 mm	2x1.00 mm	3150 N
MD03S 5.5	0.63 mm	2.00 mm	2250 N
	0.75 mm	3.00 mm	2990 N
	1.00 mm	2.00 mm	4770 N
MD03S 6.3	0.63 mm	2.00 mm	2430 N
	0.75 mm	3.00 mm	3510 N
	1.00 mm	2.00 mm	3870 N
MD05S 5.5	0.75 mm	4.00 mm	4100 N
	0.88 mm	4.00 mm	4770 N
	1.00 mm	4.00 mm	5390 N
	1.25 mm	4.00 mm	6660 N
	0.75 mm	6.00 mm	4100 N
	0.88 mm	6.00 mm	4770 N
	1.00 mm	6.00 mm	5390 N
1.25 mm	6.00 mm	6660 N	



## Stainless steel self-drilling screw

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$vZ = 2.0$	$vU = 3.0$	$vQ = 2.0$
Load, F rec.	$Fz / 2.0$	$Fu / 3.0$	$Fq / 2.0$

Each recommended load is applicable only to one force  $Fz$ ,  $Fu$  or  $Fq$ .

#### Caution:

The national safety factors  $vZ$ ,  $vU$  and  $vQ$  must be observed.

### Installation notes

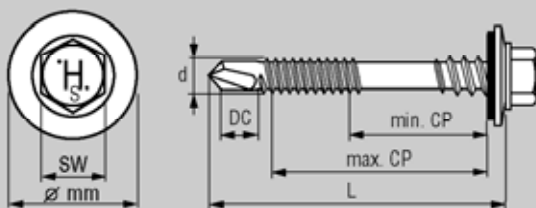
Screwdriver:	Hilti ST1800
Torque settings:	
S-MD01 S Ø 4.8	3– 5
S-MD01 S / S-MD01 LS / S-MD03 S Ø 5.5	6– 8
S-MD03 S Ø 6.3	8–10
S-MD05 S Ø 5.5	8–10
Drive without depth gauge. Cut-out controlled by torque clutch	
Nut set driver S-NSD8:	Item no. 308901

## Stainless steel sandwich self-drilling screw

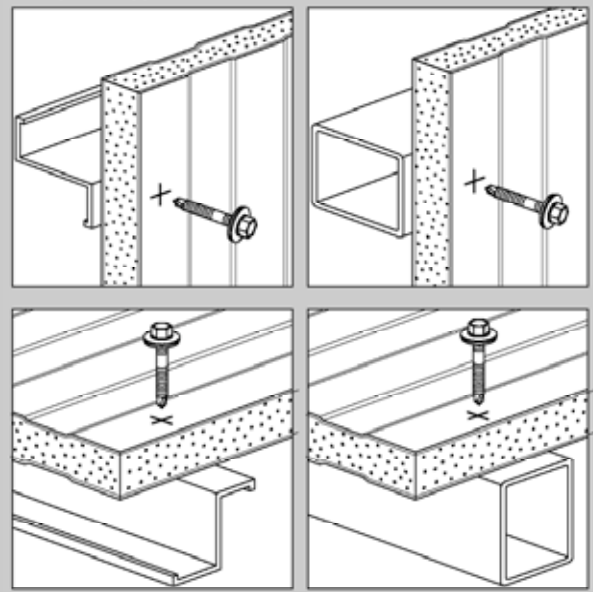
**S-CD 63 S/S-CD 73 S** self-drilling screw with fitted sealing washer  $\varnothing$  19 or 22 mm. Hardened drill point and thread start for trouble-free drilling and thread cutting in the supporting member, stainless steel section (threaded shank and head) for corrosion resistance. The Hilti S-CD self-drilling screw features a threadless shank for relief of pressure on the sandwich panel (no denting) and a threaded section at the head for good sealing washer contact. Colored screws available on request.



Uses:



Examples of applications:



### Program

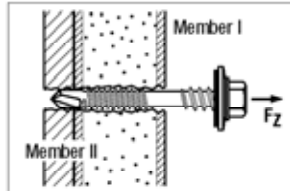
Drilling thickness DC mm	CP = Sandwich panel thickness min.-max. in mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	Package contents	Ordering designation	Item no.
2.0-5.5	22-47	5.5x75	19	8	100	S-CD 63 S 5.5x75	375244
2.0-5.5	32-57	5.5x85	19	8	100	S-CD 63 S 5.5x85	375245
2.0-5.5	42-67	5.5x95	19	8	100	S-CD 63 S 5.5x95	375246
2.0-5.5	62-87	5.5x115	19	8	100	S-CD 63 S 5.5x115	375247
2.0-5.5	82-107	5.5x135	19	8	100	S-CD 63 S 5.5x135	375248
2.0-5.5	102-127	5.5x155	19	8	100	S-CD 63 S 5.5x155	375249
2.0-5.5	122-147	5.5x175	19	8	100	S-CD 63 S 5.5x175	284542
2.0-5.5	137-182	5.5x210	19	8	100	S-CD 63 S 5.5x210	284543
2.0-5.5	22-47	5.5x75	22	8	100	S-CD 73 S 5.5x75	285642
2.0-5.5	32-57	5.5x85	22	8	100	S-CD 73 S 5.5x85	285643
2.0-5.5	42-67	5.5x95	22	8	100	S-CD 73 S 5.5x95	285644
2.0-5.5	62-87	5.5x115	22	8	100	S-CD 73 S 5.5x115	285645
2.0-5.5	82-107	5.5x135	22	8	100	S-CD 73 S 5.5x135	285646
2.0-5.5	102-127	5.5x155	22	8	100	S-CD 73 S 5.5x155	285647
2.0-5.5	122-147	5.5x175	22	8	100	S-CD 73 S 5.5x175	285648
2.0-5.5	137-182	5.5x210	22	8	100	S-CD 73 S 5.5x210	285649

## Stainless steel sandwich self-drilling screw

### Technical data

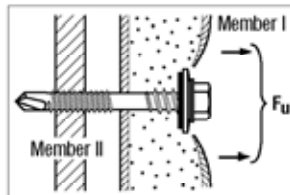
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



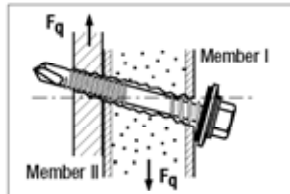
$F_z$ (N)			
Member II:	2.0 mm	3.0 mm	4.0 mm
$F_z$ (N):	2800 N	4200 N	4500 N

#### Pull-over values, $F_u$ (N) with sealing washer



$F_u$ (N)				
Member I:	0.5 mm	0.63 mm	0.75 mm	1.0 mm
$F_u$ (N):	3700 N	4950 N	6150 N	7550 N

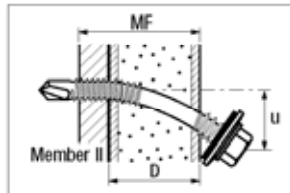
#### Shear values, $F_q$ (N) with sealing washer



$F_q$ (N)			
Member II:	2.0 mm	3.0 mm	4.0 mm
Member I:			
0.5 mm	1300 N	1300 N	1300 N
0.63 mm	1500 N	1500 N	1500 N
0.75 mm	2000 N	2000 N	2000 N
1.0 mm	2600 N	2600 N	2600 N

The values are based on members I and II shifting by 3 mm.

#### Head deflection



Permissible $u$ (mm)			
D	40 mm	60 mm	≥ 80 mm
Member II:			
2.0 mm	8.0 mm	13.0 mm	33.0 mm
3.0 mm	6.0 mm	9.0 mm	15.0 mm
4.0 mm	5.0 mm	8.0 mm	14.0 mm

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, F rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

#### Installation notes

Screwdriver:	Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

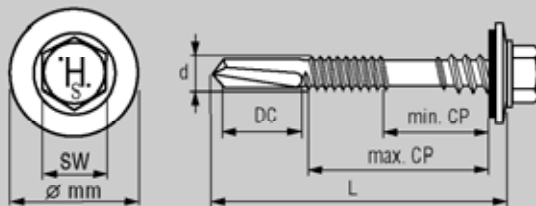
## Stainless steel sandwich self-drilling screw

**S-CD65S/S-CD75S** self-drilling screw with fitted sealing washer  $\varnothing$  19 or 22 mm. Hardened drill point and thread start for trouble-free drilling and thread cutting in the supporting member, stainless steel section (threaded shank and head) for corrosion resistance.

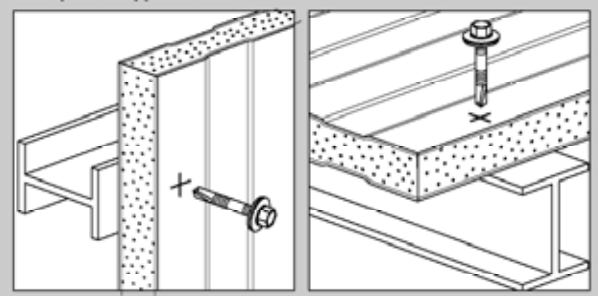
The Hilti S-CD self-drilling screw features a threadless shank for relief of pressure on the sandwich panel (no denting) and a threaded section at the head for good sealing washer contact. Colored screws available on request.



### Uses:



### Examples of applications:



### Program

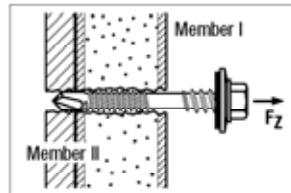
Drilling thickness DC mm	CP = Sandwich panel thickness min.-max. in mm	Dimensions (d x L) mm	Sealing washer $\varnothing$ mm	Head size AF	Package contents	Ordering designation	Item no.
3.5-12.0	22-45	5.5x90	19	8	100	S-CD 65 S 5.5x90	375250
3.5-12.0	32-55	5.5x100	19	8	100	S-CD 65 S 5.5x100	375251
3.5-12.0	42-65	5.5x110	19	8	100	S-CD 65 S 5.5x110	375252
3.5-12.0	62-85	5.5x130	19	8	100	S-CD 65 S 5.5x130	375253
3.5-12.0	82-105	5.5x150	19	8	100	S-CD 65 S 5.5x150	375254
3.5-12.0	102-125	5.5x170	19	8	100	S-CD 65 S 5.5x170	375255
3.5-12.0	122-145	5.5x190	19	8	100	S-CD 65 S 5.5x190	284544
3.5-12.0	137-175	5.5x220	19	8	100	S-CD 65 S 5.5x220	284545
3.5-12.0	22-45	5.5x90	22	8	100	S-CD 75 S 5.5x90	285650
3.5-12.0	32-55	5.5x100	22	8	100	S-CD 75 S 5.5x100	285651
3.5-12.0	42-65	5.5x110	22	8	100	S-CD 75 S 5.5x110	285652
3.5-12.0	62-85	5.5x130	22	8	100	S-CD 75 S 5.5x130	285653
3.5-12.0	82-105	5.5x150	22	8	100	S-CD 75 S 5.5x150	285654
3.5-12.0	102-125	5.5x170	22	8	100	S-CD 75 S 5.5x170	285655
3.5-12.0	122-145	5.5x190	22	8	100	S-CD 75 S 5.5x190	285656
3.5-12.0	137-175	5.5x220	22	8	100	S-CD 75 S 5.5x220	285657

## Stainless steel sandwich self-drilling screw

### Technical data

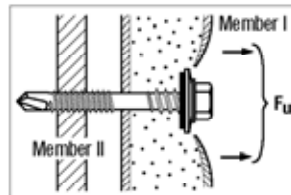
#### Pull-out values, $F_z$ (N)

Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



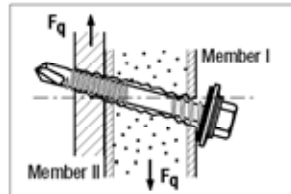
$F_z$ (N)			
Member II:	3.0 mm	4.0 mm	≥ 6.0 mm
$F_z$ (N):	4500 N	5200 N	5200 N

#### Pull-over values, $F_u$ (N) with sealing washer



$F_u$ (N)				
Member I:	0.5 mm	0.63 mm	0.75 mm	1.0 mm
$F_u$ (N):	3700 N	4950 N	6150 N	7550 N

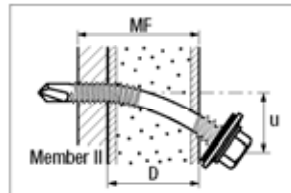
#### Shear values, $F_q$ (N) with sealing washer



$F_q$ (N)			
Member II:	3.0 mm	4.0 mm	≥ 6.0 mm
Member I:			
0.5 mm	1300 N	1300 N	1300 N
0.63 mm	1800 N	1800 N	1800 N
0.75 mm	2300 N	2300 N	2300 N
1.0 mm	3500 N	3500 N	3500 N

The values are based on members I and II shifting by 3 mm.

#### Head deflection



Permissible $u$ (mm)			
D	40 mm	60 mm	≥ 80 mm
Member II:			
3.0 mm	6.0 mm	10.0 mm	15.0 mm
4.0 mm	5.5 mm	9.5 mm	14.0 mm
≥ 6.0 mm	4.0 mm	8.0 mm	11.0 mm

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, $F$ rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

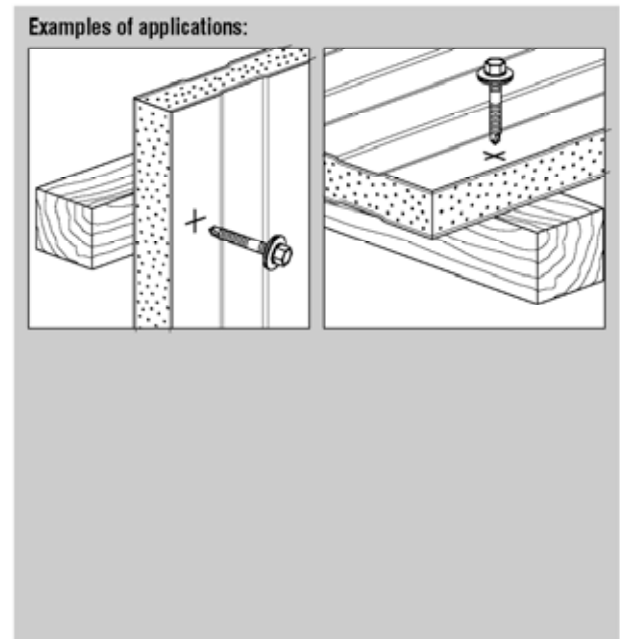
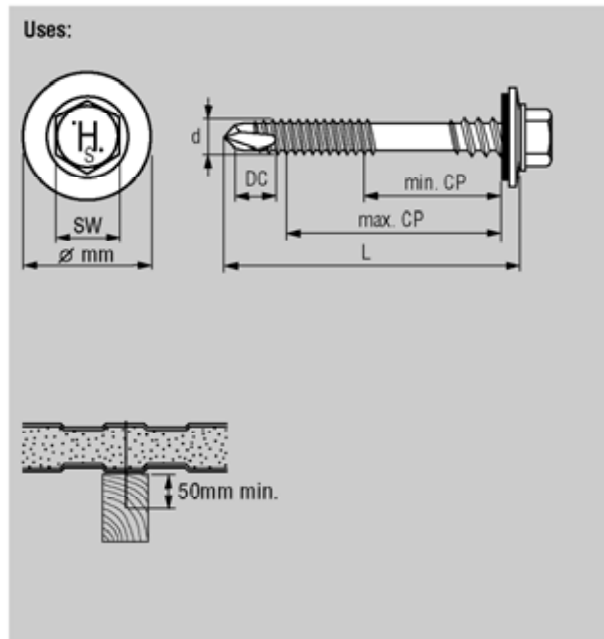
The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

#### Installation notes

Screwdriver:	Hilti ST1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

## Stainless steel sandwich self-drilling screw

**S-CDW 61 S/S-CDW 71 S** self-drilling screw with fitted sealing washer Ø 19 or 22 mm. Hardened drill point and thread start for trouble-free drilling and thread cutting, stainless steel section (threaded shank and head) for corrosion resistance. The Hilti S-CD self-drilling screw features a threadless shank for relief of pressure on the sandwich panel (no denting) and a threaded section at the head for good sealing washer contact. Colored screws available on request.



### Program

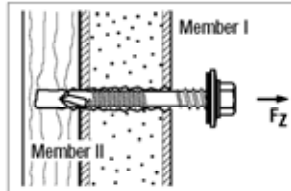
Drilling thickness DC mm	CP = Sandwich panel thickness min.-max. in mm	Dimensions (d x L) mm	Sealing washer Ø mm	Head size AF	Package contents	Ordering designation	Item no.
≥ 50 mm timber	27-47	6.5x100	19	8	100	S-CDW 61 S 6.5x100	375256
≥ 50 mm timber	37-57	6.5x110	19	8	100	S-CDW 61 S 6.5x110	375257
≥ 50 mm timber	47-67	6.5x120	19	8	100	S-CDW 61 S 6.5x120	375258
≥ 50 mm timber	67-87	6.5x140	19	8	100	S-CDW 61 S 6.5x140	375259
≥ 50 mm timber	87-107	6.5x160	19	8	100	S-CDW 61 S 6.5x160	375260
≥ 50 mm timber	107-127	6.5x180	19	8	100	S-CDW 61 S 6.5x180	375261
≥ 50 mm timber	127-147	6.5x200	19	8	100	S-CDW 61 S 6.5x200	284540
≥ 50 mm timber	147-167	6.5x220	19	8	100	S-CDW 61 S 6.5x220	284541
≥ 50 mm timber	157-177	6.5x230	19	8	100	S-CDW 61 S 6.5x230	284597
≥ 50 mm timber	27-47	6.5x100	22	8	100	S-CDW 71 S 6.5x100	285658
≥ 50 mm timber	37-57	6.5x110	22	8	100	S-CDW 71 S 6.5x110	285659
≥ 50 mm timber	47-67	6.5x120	22	8	100	S-CDW 71 S 6.5x120	285660
≥ 50 mm timber	67-87	6.5x140	22	8	100	S-CDW 71 S 6.5x140	285661
≥ 50 mm timber	87-107	6.5x160	22	8	100	S-CDW 71 S 6.5x160	285662
≥ 50 mm timber	107-127	6.5x180	22	8	100	S-CDW 71 S 6.5x180	285663
≥ 50 mm timber	127-147	6.5x200	22	8	100	S-CDW 71 S 6.5x200	285664
≥ 50 mm timber	147-167	6.5x220	22	8	100	S-CDW 71 S 6.5x220	285665
≥ 50 mm timber	157-177	6.5x230	22	8	100	S-CDW 71 S 6.5x230	285666

## Stainless steel sandwich self-drilling screw

### Technical data

#### Pull-out values, $F_z$ (N)

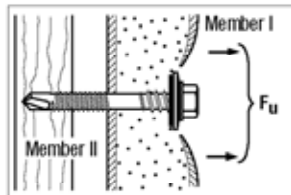
Steel S 235 (ST 37) (370 N/mm<sup>2</sup>)



#### $F_z$ (N)

Timber:  $= 0.0293 \cdot s_g$   
min.  $s_g = 50$  mm 3500 N

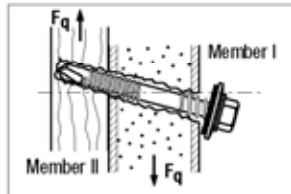
#### Pull-over values, $F_u$ (N) with sealing washer



#### $F_u$ (N)

Member I:	0.5 mm	0.63 mm	0.75 mm	1.0 mm
$F_u$ (N):	3700 N	4950 N	6150 N	7550 N

#### Shear values, $F_q$ (N) with sealing washer



#### $F_q$ (N)

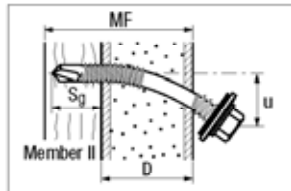
Member II: Softwood S 10

Member I:

0.5 mm	900 N
0.63 mm	1600 N
0.75 mm	2100 N
1.0 mm	2100 N

The values are based on members I and II shifting by 3 mm.

#### Head deflection



#### Permissible $u$ (mm)

D	40 mm	60 mm	80 mm	$\geq 100$ mm
	5.0 mm	9.0 mm	13.0 mm	18.0 mm

The given pull-out, pull-over and shear values are the characteristic failure loads from failure load tests, determined from regression functions.

#### Safety factors recommended by Hilti

	Pull-out	Pull-over	Shear
Safety factor	$v_Z = 2.0$	$v_U = 3.0$	$v_Q = 2.0$
Load, F rec.	$F_z / 2.0$	$F_u / 3.0$	$F_q / 2.0$

Each recommended load is applicable only to one force  $F_z$ ,  $F_u$  or  $F_q$ .

#### Caution:

The national safety factors  $v_Z$ ,  $v_U$  and  $v_Q$  must be observed.

#### Installation notes

Screwdriver:	Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

### Designations

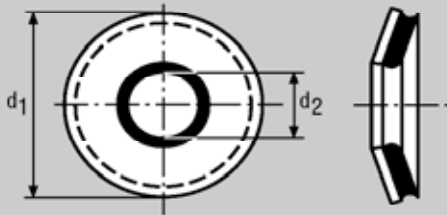
#### Sealing washers

e.g.: S-AW04 S16

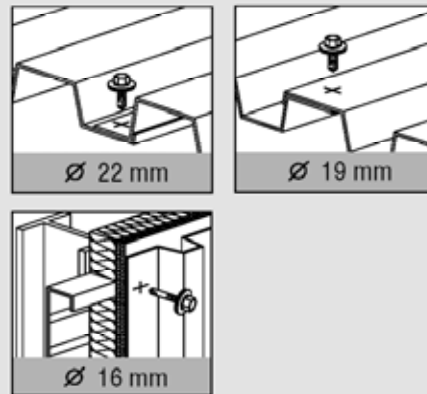
S	for screw fastening
A	for accessories
W	for washer
04	04 – screw Ø 4.8 mm
	05 – screw Ø 5.5 mm
	06 – screw Ø 6.5 mm
S	stainless steel 1.4301 (S for stainless steel)
16	16 – sealing washer outside diameter 16 mm
	19 – sealing washer outside diameter 19 mm
	22 – sealing washer outside diameter 22 mm

#### Uses:

For all outdoor applications where the fastening is exposed to the weather.



#### Examples of applications:



#### Program

Outside d <sub>1</sub> mm	Inside Ø d <sub>2</sub> mm = screw Ø	Package contents	Ordering designation	Item no.
16	4.8	200	S-AW04 S 16	284880
16	5.5	200	S-AW05 S 16	284883
16	6.5	200	S-AW06 S 16	284886
19	4.8	200	S-AW04 S 19	284881
19	5.5	200	S-AW05 S 19	284884
19	6.5	200	S-AW06 S 19	284887
22	4.8	200	S-AW04 S 22	284882
22	5.5	200	S-AW05 S 22	284885
22	6.5	200	S-AW06 S 22	284888

#### Installation notes

##### ST1800 screwdriver with depth gauge

Nut set drivers to fit the screws used

S-NSD 8: Item no. 308901

S-NSD 10: Item no. 308902

S-NSD 1/8": Item no. 308905



It is essential that the screw is driven correctly in order to ensure that the sealing washer fulfills its function for many years.



**SAMPLE-TRANSLATION**

Approval ID number

Designation

**Schrauben**  
Bohrschrauben

**MD 43S 5,5**

Blatt 4.152

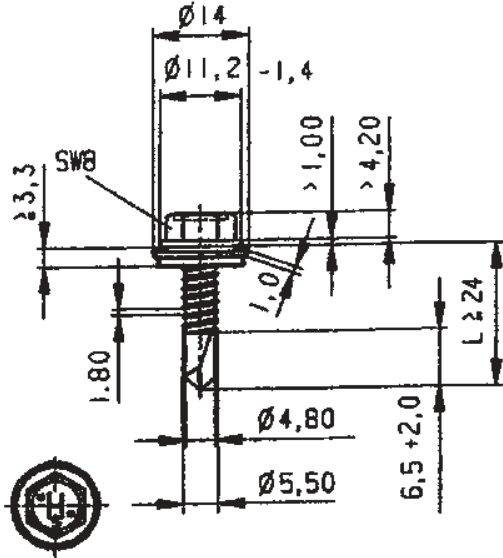
Anlage zum Ergänzungsbescheid vom 8. April 2003

Date of issue

Zulassungs-Nr. Z-14.1-4

Approval number

Fastener type



Fastener

**Verbindungselement**

Bohrschraube MD43S 5,5\*L  
Kopf ähnlich DIN EN ISO 15480

**Werkstoffe**

Material

Schraube Screw  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303

Scheibe Washer

Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303  
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

Maker

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup>. Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**

Distributor

HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-1122



**Bauteil II:** S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx).

Thickness (mm) COMPONENT II → basematerial

Blechdicke [mm]	1,50	2,00	2,50	3,00	4,00	6,00		
Anzugs-moment (Richtwert)	anschlagorientiert verschrauben (5 Nm)						Belastungsart (Type of load)	
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,20	1,25	ac	1,25	ac	Shear load kN  Querkraft zul. F <sub>Q</sub> kN	
	0,75	1,40	1,45	ac	1,45	ac		
	0,88	1,60	1,65	ac	1,65	ac		
	1,00	1,80	1,85	ac	2,20	2,55		
	1,13	1,95	2,05		2,80	2,80		
	1,25	2,05	2,20		3,00	3,00		
	1,50	2,50	2,75		3,40	3,40		
	2,00	2,90	3,30		3,40	---		
	0,63	1,05	1,50	ac	1,50	ac		Tensile load kN  Zugkraft zul. F <sub>Z</sub> kN
	0,75	1,05	1,55	ac	2,00	ac		
0,88	1,05	1,55	ac	2,10	ac			
1,00	1,05	1,55	ac	2,10	2,30			
1,13	1,05	1,55		2,10	2,55			
1,25	1,05	1,55		2,10	2,70			
1,50	1,05	1,55		2,10	2,70			
2,00	1,05	1,55		2,10	2,70			

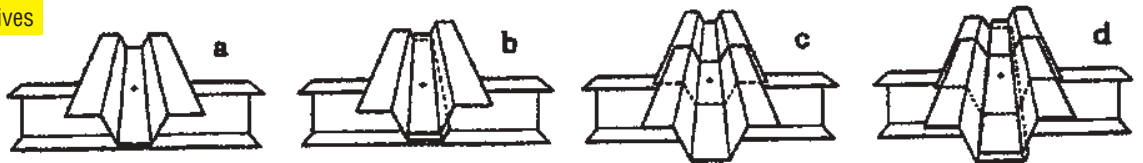
Thickness (mm) COMPONENT II → metal sheet to be fastened

Load figures: SHEAR

Load figures: TENSILE

Application alternatives

Befestigungstypen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

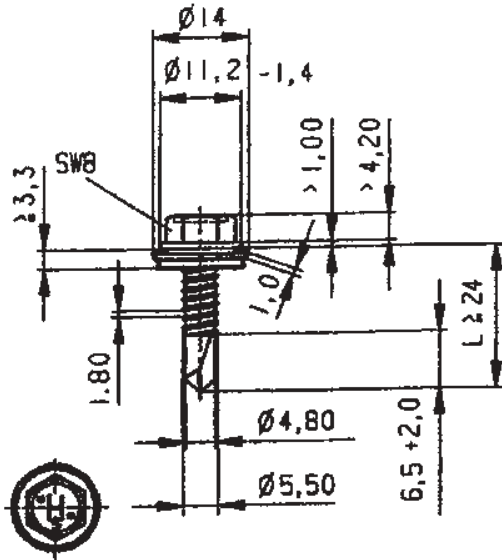
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicker zu wählen.

In case of intermediate thicknesses for component I or II the loadbearing data have to be taken from the smaller thicknesses

**Schrauben**  
Bohrschrauben

**MD 43S 5,5**

Blatt 4.152  
Anlage zum Ergänzungsbescheid  
vom 8. April 2003  
Zulassungs-Nr. Z-14.1-4



maximale Durchdringung:  $\sum (t_1 + t_2) = 5,50 \text{ mm}$

**Verbindungselement**

Bohrschraube MD43S 5,5\*L  
Kopf ähnlich DIN EN ISO 15480

**Werkstoffe**

**Schraube**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303

**Scheibe**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303  
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup>. Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

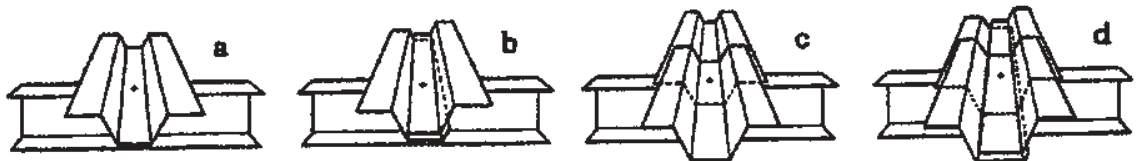
**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-1122

**Bauteil II:** S235xx (für  $t_{II} \leq 3 \text{ mm}$  auch S280GD+xx oder S320GD+xx).

Blechdicke [mm]	1,50	2,00	2,50	3,00	4,00	6,00	Belastungsart
	anschlagorientiert verschrauben (5 Nm)						
<b>Anzugsmoment (Richtwert)</b>							
<b>Bauteil I, Blechdicke in mm</b> Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,20	1,25 ac	1,25 ac	1,25 ac	1,25 ac	 Querkraft zul. $F_Q$ kN  Zugkraft zul. $F_Z$ kN
	0,75	1,40	1,45 ac	1,45 ac	1,45 ac	1,45 ac	
	0,88	1,60	1,65 ac	1,65 ac	1,65 ac	1,65 a	
	1,00	1,80	1,85 ac	2,20 ac	2,55 ac	2,55 a	
	1,13	1,95	2,05	2,40	2,80	2,80	
	1,25	2,05	2,20	2,60	3,00	3,00	
	1,50	2,50	2,75	3,05	3,40	3,40	
	2,00	2,90	3,30	3,35	3,40	---	
	0,63	1,05	1,50 ac	1,50 ac	1,50 ac	1,50 ac	
	0,75	1,05	1,55 ac	2,00 ac	1,75 ac	1,75 ac	
0,88	1,05	1,55 ac	2,10 ac	2,00 ac	2,00 a		
1,00	1,05	1,55 ac	2,10 ac	2,30 ac	2,30 a		
1,13	1,05	1,55	2,10	2,55	2,55		
1,25	1,05	1,55	2,10	2,70	2,80		
1,50	1,05	1,55	2,10	2,70	3,35		
2,00	1,05	1,55	2,10	2,70	---		

**Befestigungstypen**



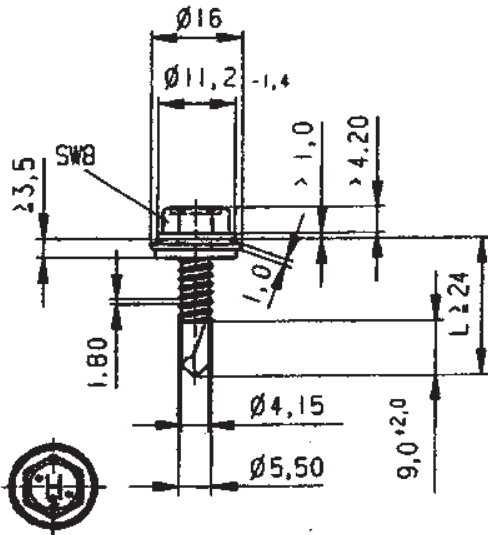
Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicke zu wählen.

**Schrauben**  
Bohrschrauben

**MD 51LS 5,5**

Blatt 3.110  
Anlage zum Ergänzungsbescheid  
vom 8. April 2003  
Zulassungs-Nr. Z-14.1-4



maximale Durchdringung:  $\sum (t_1 + t_{II}) = 4,00 \text{ mm}$

**Verbindungselement** Bohrschraube MD51LS 5,5\*L  
Kopf ähnlich DIN EN ISO 15480

**Werkstoffe**  
Schraube  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303

Scheibe  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303  
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**  
Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup> Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**  
HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-1122



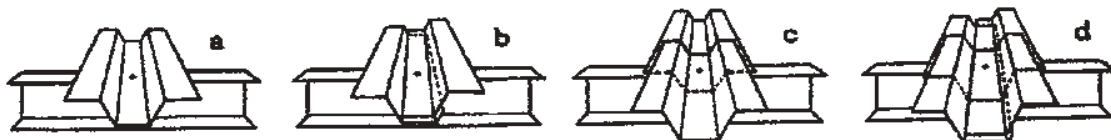
**Bauteil II:** S235xx (für  $t_{II} \leq 3 \text{ mm}$  auch S280GD+xx oder S320GD+xx),

Blechdicke [mm]	2*0,63	2*0,75	2*0,88	2*1,00	2*1,13	2*1,25	2*1,50
-----------------	--------	--------	--------	--------	--------	--------	--------

Anzugs- moment (Richtwert)	anschlagorientiert verschrauben							Belastungsart
	(5 Nm)							

Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,30	1,45	1,55	1,65	1,75	1,85	1,85	 Querkraft zul. F <sub>Q</sub> kN
	0,75	1,50	1,65	1,75	1,85	1,95	2,05	2,05	
	0,88	1,60	1,80	1,95	2,15	2,30	2,45	2,45	
	1,00	1,65	1,90	2,20	2,40	2,65	2,85	2,85	
	1,13	1,80	2,05	2,30	2,50	2,75	2,90		
	1,25	1,95	2,15	2,40	2,60	2,80	2,95		
	1,50	1,95	2,15	2,40	2,60	2,80	2,95		
	2,00	---	---	---	---	---	---	---	
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	0,85	1,05	1,30	1,45	1,45	1,45	1,45	 Zugkraft zul. F <sub>Z</sub> kN
	0,75	0,85	1,05	1,30	1,50	1,75	1,90	1,90	
	0,88	0,85	1,05	1,30	1,50	1,75	2,00	2,00	
	1,00	0,85	1,05	1,30	1,50	1,75	2,00	2,00	
	1,13	0,85	1,05	1,30	1,50	1,75	2,00		
	1,25	0,85	1,05	1,30	1,50	1,75	2,00		
	1,50	0,85	1,05	1,30	1,50	1,75	2,00		
	2,00	---	---	---	---	---	---	---	

Befestigungs-  
typen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**

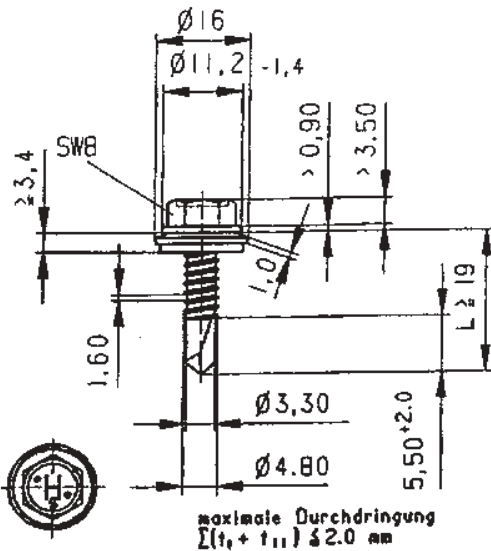
Bohrschrauben

**MD 51 S 4,8**

Blatt 3.105

Anlage zum Ergänzungsbescheid vom 8. April 2003

Zulassungs-Nr. Z-14.1-4



**Verbindungselement**

Bohrschraube MD51S 4,8\*L  
Kopf ähnlich DIN EN ISO 15480

**Werkstoffe**

**Schraube**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4301

**Scheibe**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4301  
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup> Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**

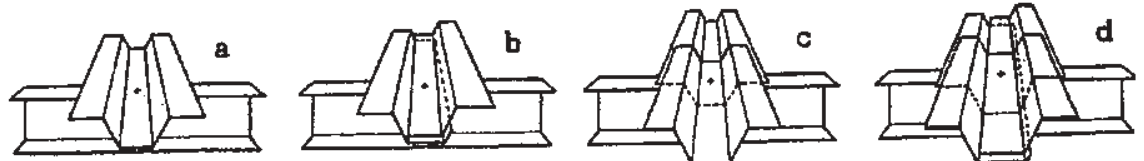
HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-1122



**Bauteil II:** S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx).

Blechdicke [mm]	0,63	0,75	0,88	1,00	1,13	1,25					Belastungsart						
<b>Anzugsmoment (Richtwert)</b>	anschlagorientiert verschrauben ( 5 Nm )										<p>Querkraft zul. <math>F_Q</math> kN</p>						
<b>Bauteil I, Blechdicke in mm</b>	0,63	0,75	0,88	1,00	1,13	1,25	0,70	0,95	1,20	1,50		a	1,15	a	1,30	a	1,30
<b>Bauteil II, Blechdicke in mm</b>	0,63	0,75	0,88	1,00	1,13	1,25	0,40	0,55	0,65	0,80	a	0,95	a	1,10	a	1,10	a
Bei $t_{I,N}$ und $t_{II,N}$ aus S320 GD dürfen die Werte um 8% erhöht werden.																	
<p>Zugkraft zul. <math>F_Z</math> kN</p>																	

**Befestigungstypen**

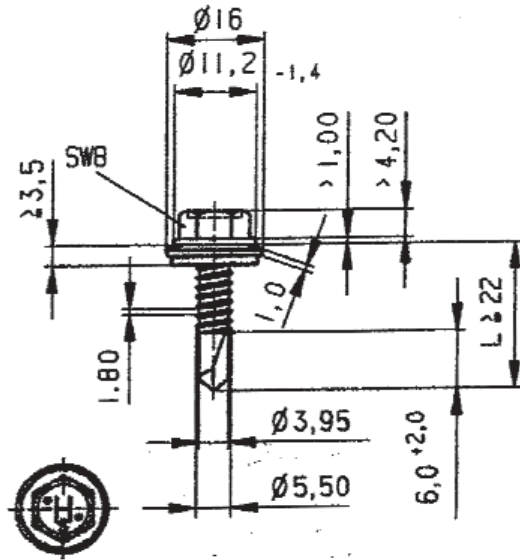


Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.  
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 51S 5,5**

Blatt 3.108  
Anlage zum Änderungsbescheid  
vom 8. April 2003  
Zulassungs-Nr. Z-14.1-4



maximale Durchdringung  $\sum (t_1 + t_{II}) = 3,00 \text{ mm}$

**Verbindungs-  
element**

Bohrschraube MD51S 5,5\*L  
Kopf ähnlich DIN/EN/ISO 15480

**Werkstoffe**

**Schraube**  
nichtrostender Stahl DIN EN 10088  
Werkstoff-Nr. 1.4303,  
Bohrspitze aus einsatzgehärtetem Stahl

**Scheibe**  
nichtrostender Stahl DIN EN 10088,  
Werkstoff-Nr. 1.4303  
mit aufvulkanisierter EPDM-Dichtung

**Hersteller**

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup> Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**

HILTI DEUTSCHLAND GmbH 26  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-112



**Bauteil II:** S235xx (für  $t_{II} \leq 3 \text{ mm}$  auch S280GD+xx oder S320GD+xx)

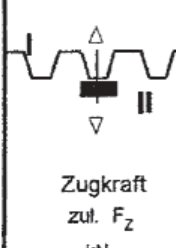
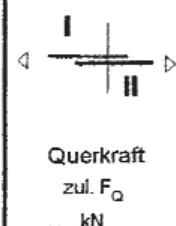
Blechdicke [mm]	0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00
-----------------	------	------	------	------	------	------	------	------

Anzugs-  
moment  
(Richtwert)

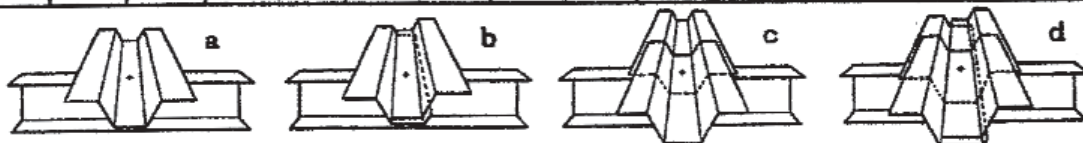
anschlagorientiert verschrauben  
(5 Nm)

**Belastungsart**

Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	0,50	0,70	0,90	1,25	1,35	1,60	ac	1,95	ac	1,95	a	
	0,75	0,60	0,75	0,95	1,40	1,50	1,75		2,10		2,10	a	
	0,88	0,65	0,85	1,05	1,55	1,70	1,90		2,25		2,25		
	1,00	0,75	0,90	1,10	1,70	1,85	2,05		2,35		2,60		
	1,13	0,75	1,00	1,20	1,80	2,05	2,20		2,50				
	1,25	0,80	1,05	1,35	1,95	2,20	2,30		2,60				
	1,50	0,80	1,05	1,35	2,20	2,35	2,50		2,65				
	2,00	---	---	---	---	---	---		---				
	Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	0,35	0,50	0,60	0,75	0,90	1,00	ac	1,35	ac	1,45	a
		0,75	0,35	0,50	0,60	0,75	0,90	1,00		1,35		1,75	a
0,88		0,35	0,50	0,60	0,75	0,90	1,00		1,35		2,05		
1,00		0,35	0,50	0,60	0,75	0,90	1,00		1,35		2,05		
1,13		0,35	0,50	0,60	0,75	0,90	1,00		1,35				
1,25		0,35	0,50	0,60	0,75	0,90	1,00		1,35				
1,50		0,35	0,50	0,60	0,75	0,90	1,00		1,35				



Befestigungs-  
typen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

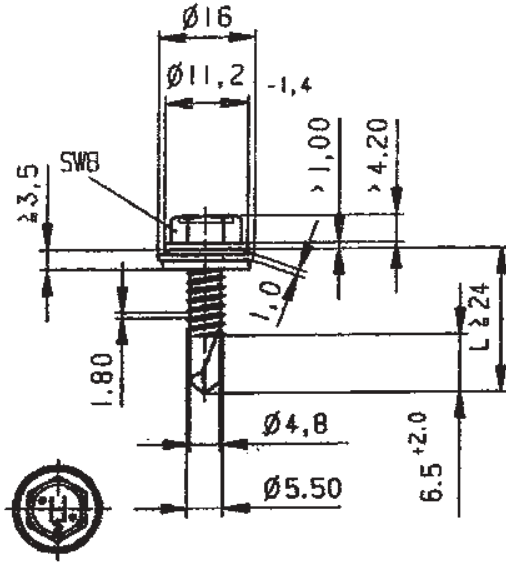
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 53S 5,5**

Blatt 4.146

Anlage zum Ergänzungsbescheid  
vom 8. April 2003  
Zulassungs-Nr. Z-14.1-4



maximale Durchdringung:  $\Sigma(t_1 + t_{II}) = 5,50 \text{ mm}$

**Verbindungs-  
element**

Bohrschraube MD53S 5,5\*L  
Kopf ähnlich DIN EN ISO 15480

**Werkstoffe**

**Schraube**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303

**Scheibe**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303  
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup>. Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**

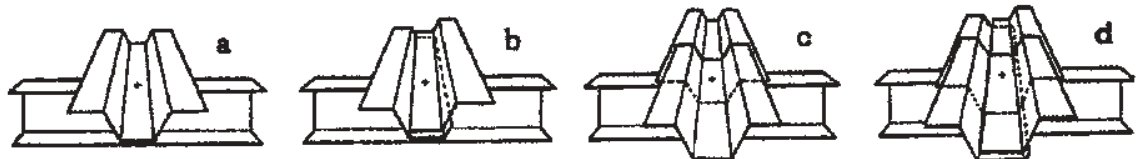
HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-1122



Bauteil II: S235xx (für  $t_{II} \leq 3 \text{ mm}$  auch S280GD+xx oder S320GD+xx).

Blechdicke [mm]	1,50	2,00	2,50	3,00	4,00	6,00	Belastungsart					
	anschlagerorientiert verschrauben (5 Nm)											
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,15	ac	1,35	ac	1,55	ac	1,75	ac	1,75	ac	<p>Querkraft zul. <math>F_Q</math> kN</p> <p>Zugkraft zul. <math>F_Z</math> kN</p>
	0,75	1,35	ac	1,60	ac	1,85	ac	2,05	ac	2,05	ac	
	0,88	1,60		1,85	ac	2,10	ac	2,40	ac	2,40	a	
	1,00	1,80		2,40	ac	2,50	ac	2,65	ac	2,65	a	
	1,13	2,00		2,55		2,75		3,00		3,00		
	1,25	2,15		2,65		2,95		3,25		3,25		
	1,50	2,55		2,95		3,40		3,85		3,85		
	2,00	2,95		3,40		3,60		3,85		---		
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,05	ac	1,40	ac	1,40	ac	1,40	ac	1,40	ac	<p>Querkraft zul. <math>F_Q</math> kN</p> <p>Zugkraft zul. <math>F_Z</math> kN</p>
	0,75	1,05	ac	1,50	ac	1,65	ac	1,65	ac	1,65	ac	
	0,88	1,05		1,50	ac	1,95	ac	1,95	ac	1,95	a	
	1,00	1,05		1,50	ac	2,05	ac	2,20	ac	2,20	a	
	1,13	1,05		1,50		2,05		2,50		2,50		
	1,25	1,05		1,50		2,05		2,60		2,75		
	1,50	1,05		1,50		2,05		2,60		3,30		
	2,00	1,05		1,50		2,05		2,60		---		

Befestigungs-  
typen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

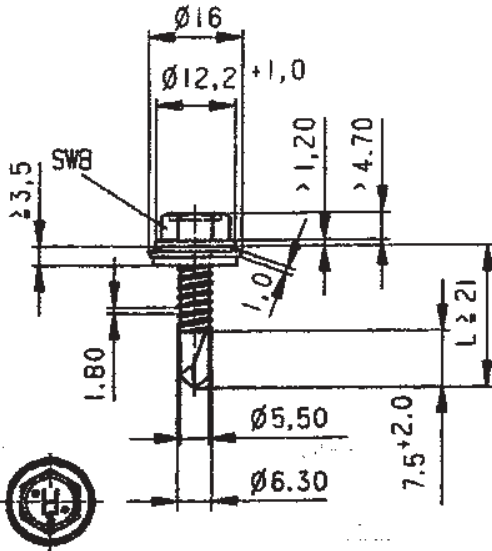
**MD 53S 6,3**

Blatt 4.150

Anlage zum Ergänzungsbescheid

vom 8. April 2003

Zulassungs-Nr. Z-14.1-4



maximale Durchdringung:  $\sum (t_I + t_{II}) = 6,00 \text{ mm}$

**Verbindungs-  
element**

Bohrschraube MD53S 6,3\*L  
Kopf ähnlich DIN EN ISO 15480

**Werkstoffe**

**Schraube**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303

**Scheibe**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303  
mit aufvulkanisierter Elastomer-Dichtung.

**Hersteller**

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup> Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**

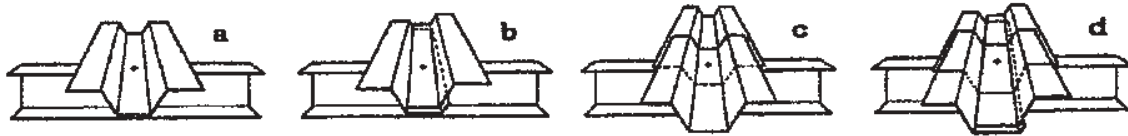
HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-1122



**Bauteil II:** S235xx (für  $t_{II} \leq 3 \text{ mm}$  auch S280GD+xx oder S320GD+xx),

Anzugs- moment (Richtwert)	anschlagerorientiert verschrauben						Belastungsart				
	1,50	2,00	2,50	3,00	4,00	6,00					
	( 5 Nm )										
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,25	1,50	ac	1,90	ac	2,35	ac	2,35	ac	 Querkraft zul. F <sub>Q</sub> kN
	0,75	1,45	1,75	ac	2,20	ac	2,60	ac	2,60	ac	
	0,88	1,70	2,00	ac	2,45	ac	2,90	ac	2,90	ac	
	1,00	1,90	2,23	ac	2,70	ac	3,15	ac	3,15	ac	
	1,13	2,10	2,50		2,90		3,40		3,40		
	1,25	2,30	2,70		3,15		3,65		3,65		
	1,50	2,70	3,15		3,65		4,10		4,25		
	2,00	3,35	3,90		4,00		4,10		4,25		
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,00	1,55	ac	1,70	ac	1,70	ac	1,70	ac	 Zugkraft zul. F <sub>Z</sub> kN
	0,75	1,00	1,55	ac	2,00	ac	2,00	ac	2,00	ac	
	0,88	1,00	1,55	ac	2,15	ac	2,30	ac	2,30	ac	
	1,00	1,00	1,55	ac	2,15	ac	2,60	ac	2,60	ac	
	1,13	1,00	1,55		2,15		2,85		2,90		
	1,25	1,00	1,55		2,15		2,85		3,20		
	1,50	1,00	1,55		2,15		2,85		3,80		
	2,00	1,00	1,55		2,15		2,85		3,80		

**Befestigungs-  
typen**



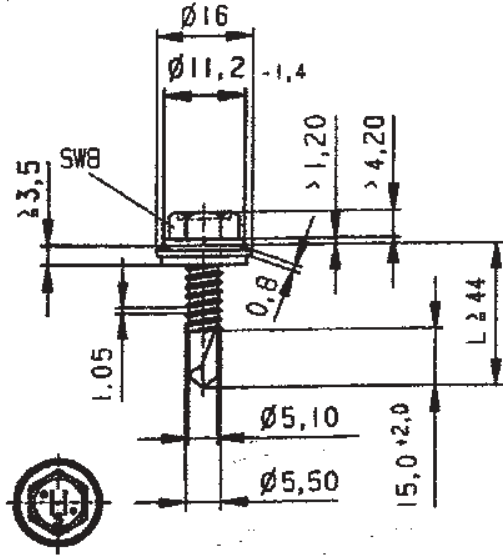
Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 55S 5,5**

Blatt 4.148  
Anlage zum Erganzungsbescheid  
vom 8. April 2003  
Zulassungs-Nr. Z-14.1-4



**Verbindungs-  
element**

Bohrschraube MD55S 5,5\*L  
Kopf ahnlich DIN EN ISO 15480

**Werkstoffe**

**Schraube**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303

**Scheibe**  
Nichtrostender Stahl DIN EN 10 088  
Werkstoff-Nr.: 1.4303  
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup>. Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**

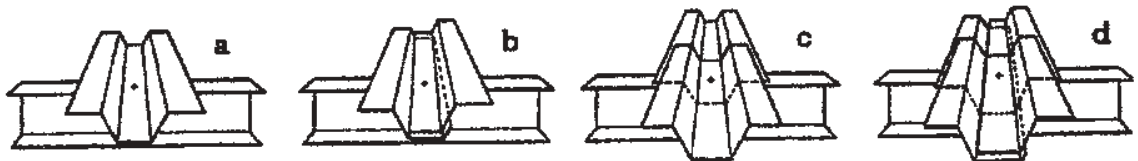
HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-1122



Bauteil II: S235Jxx

Blechdicke [mm]	4,00	5,00	6,00	8,00	10,00	Belastungsart						
Anzugs- moment (Richtwert)	anschlagorientiert verschrauben (5 Nm)											
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	1,75	ac	1,75	ac	1,75	abcd	1,75	abcd	1,75	abcd	I II Querkraft zul. F <sub>Q</sub> kN
	0,75	2,05	ac	2,05	ac	2,05	abcd	2,05	abcd	2,05	abcd	
	0,88	2,40	ac	2,40	ac	2,40	ac	2,40	ac	2,40	ac	
	1,00	2,70	ac	2,70	ac	2,70	ac	2,70	ac	2,70	ac	
	1,13	3,05		3,05		3,05	ac	3,05	ac	3,05	ac	
	1,25	3,35		3,35		3,35	ac	3,35	ac	3,35	a	
	1,50	3,80		3,95		3,95	ac	3,95	ac	3,95	a	
	2,00	3,80		5,20		5,20		5,20		5,20		
	0,63	1,55	ac	1,55	ac	1,55	abcd	1,55	abcd	1,55	abcd	II Zugkraft zul. F <sub>Z</sub> kN
	0,75	1,80	ac	1,80	ac	1,80	abcd	1,80	abcd	1,80	abcd	
	0,88	2,05	ac	2,05	ac	2,05	ac	2,05	ac	2,05	ac	
	1,00	2,25	ac	2,25	ac	2,25	ac	2,25	ac	2,25	ac	
	1,13	2,50		2,50		2,50	ac	2,50	ac	2,50	ac	
	1,25	2,75		2,75		2,75	ac	2,75	ac	2,75	a	
1,50	3,15		3,15		3,15	ac	3,15	ac	3,15	a		
2,00	3,75		4,00		4,00		4,00		4,00			

Befestigungs-  
typen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulassigen Befestigungstypen sind jeweils neben den zulassigen Kraften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulassige Quer- und Zugkraft der geringeren Bauteildicken zu wahlen.

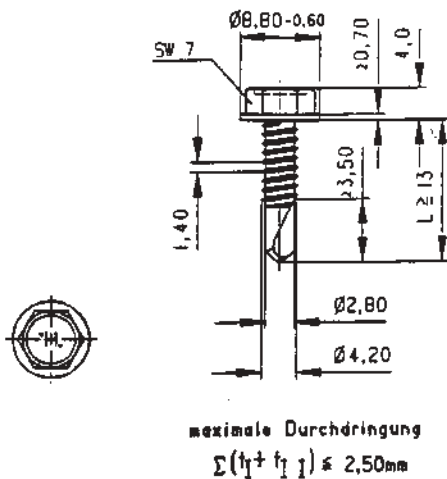


Blatt 3.50

Anlage zum Ergänzungsbescheid vom 8. November 1996  
Nr. Z-14.14

**Schrauben**  
Bohrschrauben

MD 01 Z 4,2



**Verbindungs-  
element**

Bohrschraube  
TS-MD01Z 4,2xL  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk



**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

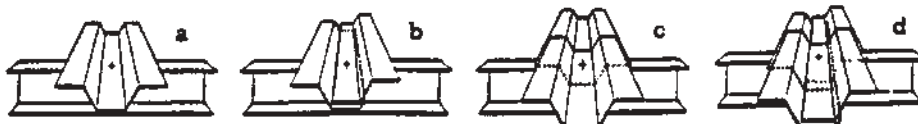
**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224

**Bauteil II S235xx (für  $t_1 \leq 3$  mm auch S280GD+xx oder S320GD+xx)**

Blechdicke [mm]	0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00			Belastungsart	
Anzugs- moment (Richtwert)	anschlagorientiert verschrauben!		Gesamtdicke $\Sigma(t_1 + t_2)$ [mm]				bis 1,25	bis 2,50				
			Anzugsmoment [Nm]				(2)	(4)				
Bauteil I Blechteile in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,75	1,00	1,25	1,30	1,30	ac	1,30	ac	1,30	a	 Querkraft zul. $F_Q$ kN
	0,75	0,85	1,05	1,30	1,50	1,80		2,00		2,00		
	0,88	0,90	1,10	1,40	1,65	2,00		2,25		2,25		
	1,00	0,95	1,20	1,50	1,80	2,15		2,50		2,50		
	1,13	0,95	1,20	1,50	1,80	2,15		2,50				
	1,25	0,95	1,20	1,50	1,80	2,15		2,50				
	1,50	0,95	1,20	1,50	1,80							
	2,00											
Bauteil I Blechteile in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,45	0,60	0,70	0,70	0,70	ac	0,70	ac	0,70	a	 Zugkraft zul. $F_Z$ kN
	0,75	0,45	0,60	0,70	0,85	0,95		1,00		1,00		
	0,88	0,45	0,60	0,70	0,85	0,95		1,10		1,35		
	1,00	0,45	0,60	0,70	0,85	0,95		1,10		1,40		
	1,13	0,45	0,60	0,70	0,85	0,95		1,10				
	1,25	0,45	0,60	0,70	0,85	0,95		1,10				
	1,50	0,45	0,60	0,70	0,85							
	2,00											

**Befestigungs-  
typen**



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**

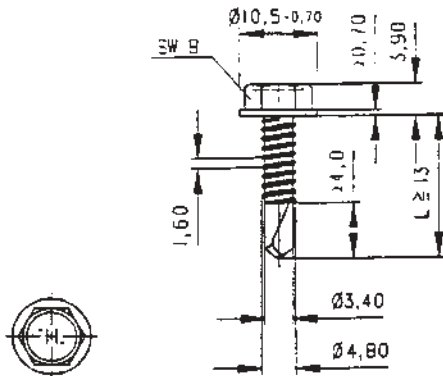
**MD 01 Z 4,8**

Blatt 3.52

Anlage zum Ergänzungsbescheid vom 8. November 1996

Nr. Z-14.1-4

Bohrschrauben



maximale Durchdringung  
 $\Sigma(t_1 + t_2) \leq 2,75\text{mm}$

**Verbindungselement**

Bohrschraube  
TS-MD01Z 4,8xL  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

Schraube  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk



**Hersteller**

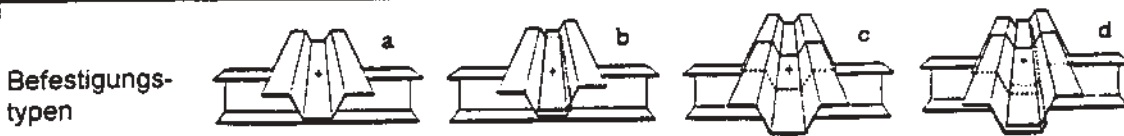
She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Elsenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224

**Bauteil II** S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx)

Blechdicke [mm]	Blechdicke [mm]								Anzugs- moment (Richtwert)	Belastungs- art			
	0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00					
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	anschlagorientiert		Gesamtdicke $\Sigma(t_1 + t_2)$ [mm]				bis 1,25		bis 2,75		<p>Querkraft zul. <math>F_Q</math> kN</p> <p>Zugkraft zul. <math>F_Z</math> kN</p>		
	verschrauben!		Anzugsmoment [Nm]				(2)		(5)				
	0,63	0,70	0,90	1,05	1,20	1,35	1,50	ac	1,80	ac		1,80	ac
	0,75	0,70	0,95	1,15	1,35	1,55	1,75	-	2,20	-		2,20	a
	0,88	0,70	0,95	1,20	1,45	1,65	1,95	-	2,55	-		-	-
	1,00	0,70	0,95	1,20	1,50	1,80	2,15	-	2,90	-		-	-
	1,13	0,70	0,95	1,20	1,50	1,80	2,15	-	2,90	-		-	-
	1,25	0,70	0,95	1,20	1,50	1,80	2,15	-	2,90	-		-	-
1,50	0,70	1,00	1,35	1,75	2,20	2,70	-	-	-	-	-		
2,00	-	-	-	-	-	-	-	-	-	-	-		
0,63	0,40	0,50	0,65	0,70	0,70	0,70	ac	0,70	ac	0,70	ac		
0,75	0,40	0,50	0,65	0,75	0,90	1,00	-	1,00	-	1,00	a		
0,88	0,40	0,50	0,65	0,75	0,90	1,05	-	1,35	-	-	-		
1,00	0,40	0,50	0,65	0,75	0,90	1,05	-	1,35	-	-	-		
1,13	0,40	0,50	0,65	0,75	0,90	1,05	-	1,35	-	-	-		
1,25	0,40	0,50	0,65	0,75	0,90	1,05	-	1,35	-	-	-		
1,50	0,40	0,50	0,65	0,75	0,90	1,05	-	-	-	-	-		
2,00	-	-	-	-	-	-	-	-	-	-	-		



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.  
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

Blatt 3.54

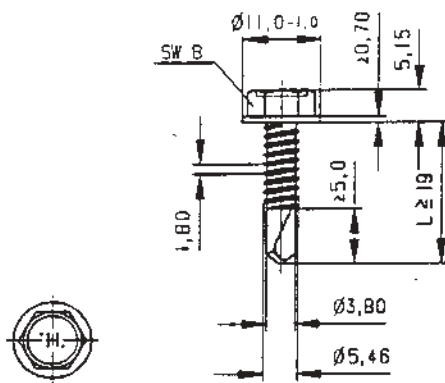
Anlage zum Ergänzungsbescheid vom 8. November 1996

Nr. Z-14.1-4

# Schrauben

## MD 01 Z 5,5

Bohrschrauben



maximale Durchdringung  
 $\Sigma(t_1 + t_2) \leq 3,00\text{mm}$

### Verbindungselement

Bohrschraube  
 TS-MD01Z 5,5xL  
 Kopf ähnlich DIN 7504 Form K

### Werkstoffe

Schraube  
 Stahl einsatzgehärtet  
 verzinkt gal Zn 8 bk



### Hersteller

She Fung Screws Co. Ltd.  
 3rd. Floor, Cheng Teh Road  
 Sec. 7, Pe - Tou  
 Taipei, Taiwan

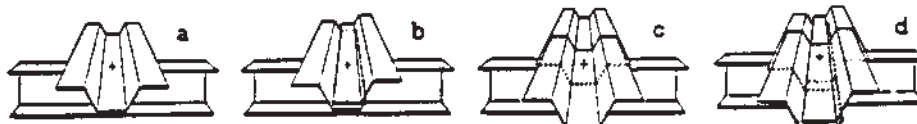
### Vertrieb

HILTI DEUTSCHLAND GmbH  
 Eisenheimer Str. 31, 80687 München  
 Tel. 089 / 57001-0, Fax: 089 / 57001-224

### Bauteil II S235xx (für $t_{II} \leq 3\text{ mm}$ auch S280GD+xx oder S320GD+xx)

Blechdicke (mm)	0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00	Belastungsart			
Anzugs- moment (Richtwert)	anschlagorientiert		Gesamtdicke $\Sigma(t_1 + t_2)$ [mm]				bis 1,25		bis 3,00		 Querkraft zul. $F_Q$ kN	
	verschrauben!		Anzugsmoment [Nm]				(3)		(6)			
	0,63	0,75	0,90	1,00	1,05	1,15	1,20	1,30	ac	1,30		ac
	0,75	0,80	1,00	1,25	1,45	1,70	1,90	1,90	ac	1,90		a
	0,88	0,85	1,05	1,30	1,50	1,75	2,00	2,25		2,55		
	1,00	0,95	1,15	1,40	1,60	1,85	2,10	2,60		2,60		
	1,13	1,35	1,55	1,80	1,95	2,20	2,55	2,95		---		
	1,25	1,75	1,95	2,15	2,30	2,50	3,00	3,30		---		
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,45	0,60	0,75	0,85	0,85	0,85	0,85	ac	0,85	ac	
	0,75	0,45	0,60	0,75	0,90	1,05	1,15	1,15	ac	1,15	a	
	0,88	0,45	0,60	0,75	0,90	1,05	1,20	1,45		1,45		
	1,00	0,45	0,60	0,75	0,90	1,05	1,20	1,55		1,75		
	1,13	0,45	0,60	0,75	0,90	1,05	1,20	1,55		---		
	1,25	0,45	0,60	0,75	0,90	1,05	1,20	1,55		---		
	1,50	0,45	0,60	0,75	0,90	1,05	1,20	1,55		---		
	2,00	0,45	0,60	0,75	0,90	---	---	---		---		

Befestigungs-  
typen



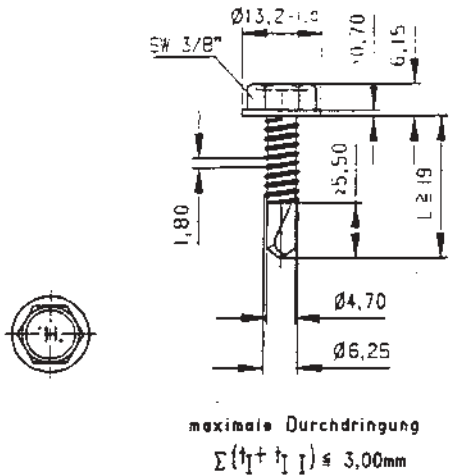
Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 01 Z 6,3**

Blatt 3.58  
Anlage zum Ergänzungsbescheid  
vom 8. November 1996  
Nr. Z-14.1-4



**Verbindungselement**

Bohrschraube  
TS-MD01Z 6,3xL  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

Schraube  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk



**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

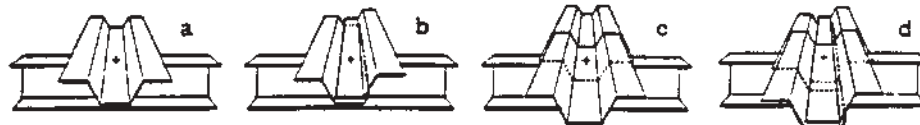
**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Elsenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224

**Bauteil II S235xx (für t<sub>II</sub> ≤ 3 mm auch S280GD+xx oder S320GD+xx)**

Blechdicke [mm]	0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00					Belastungsart
Anzugsmoment (Richtwert)	anschlagorientiert		Gesamtdicke Σ(t <sub>I</sub> + t <sub>II</sub> ) [mm]				bis 1,25		bis 3,00				
	verschrauben!		Anzugsmoment [Nm]				(4)		(8)				
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,75	1,00	1,25	1,45	1,75	1,85	ac	1,85	ac	1,85	ac	 Querkraft zul. F <sub>Q</sub> kN
	0,75	0,95	1,15	1,40	1,65	1,90	2,15	-	2,40	ac	2,40	ac	
	0,88	1,00	1,20	1,45	1,65	1,90	2,15	-	2,55	-	3,00	a	
	1,00	1,05	1,25	1,50	1,70	1,95	2,20	-	2,70	-	3,60	-	
	1,13	1,05	1,25	1,55	1,80	2,10	2,40	-	3,00	-	-	-	
	1,25	1,05	1,30	1,65	1,95	2,30	2,60	-	3,35	-	-	-	
	1,50	1,05	1,30	1,65	1,95	2,30	2,60	-	3,35	-	-	-	
	2,00	1,05	1,30	1,65	1,95	-	-	-	-	-	-	-	
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,45	0,60	0,75	0,90	0,95	0,95	ac	0,95	ac	0,95	ac	 Zugkraft zul. F <sub>Z</sub> kN
	0,75	0,45	0,60	0,75	0,90	1,05	1,20	-	1,20	ac	1,20	ac	
	0,88	0,45	0,60	0,75	0,90	1,05	1,20	-	1,55	-	1,70	a	
	1,00	0,45	0,60	0,75	0,90	1,05	1,20	-	1,55	-	2,15	-	
	1,13	0,45	0,60	0,75	0,90	1,05	1,20	-	1,55	-	-	-	
	1,25	0,45	0,60	0,75	0,90	1,05	1,20	-	1,55	-	-	-	
	1,50	0,45	0,60	0,75	0,90	1,05	1,20	-	1,55	-	-	-	
	2,00	0,45	0,60	0,75	0,90	-	-	-	-	-	-	-	

**Befestigungstypen**



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

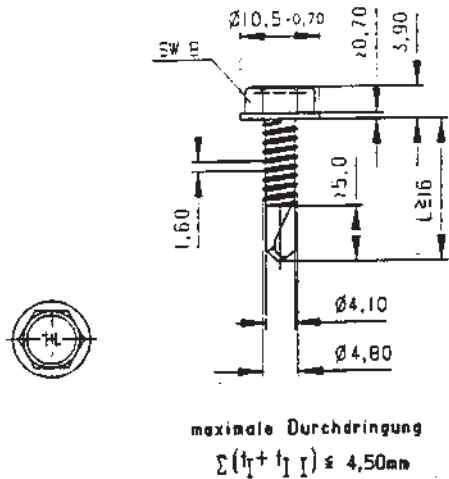
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

Blatt 4.91

Anlage zum Ergänzungsbescheid vom 8. November 1996 Nr. Z-14.1-4

**Schrauben**  
Bohrschrauben

**MD 03 Z 4,8**



**Verbindungselement**

Bohrschraube  
TS-MD03Z 4,8xL  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk



**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

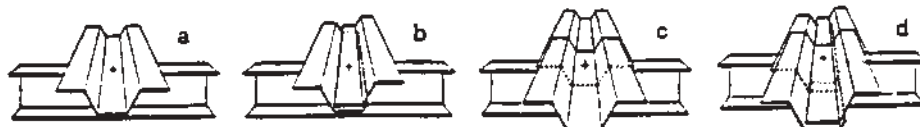
**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224

**Bauteil II S235xx (für t<sub>fl</sub> ≤ 3 mm auch S280GD+xx oder S320GD+xx)**

Blechdicke [mm]	Blechdicke [mm]						Belastungsart
	1,50	2,00	3,00	4,00	5,00	6,00	
Anzugsmoment (Richtwert)	anschlagorientiert verschrauben!		Gesamtdicke $\Sigma(t_1 + t_2)$ [mm]		bis 2,15	bis 4,50	 Querkraft zul. F <sub>Q</sub> kN
			Anzugsmoment [Nm]		(2)	(6)	
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	1,15	1,35	ac	1,35	ac	 Zugkraft zul. F <sub>Z</sub> kN
	0,75	1,15	1,50	ac	1,90	ac	
	0,88	1,30	1,75		2,45		
	1,00	1,45	2,00		3,00		
	1,13	1,75	2,30		3,30		
	1,25	2,05	2,60		3,55		
	1,50	2,60	3,00		3,65		
	2,00	2,60	3,00		---		
0,63	0,80	0,80	ac	0,80	ac		
0,75	0,80	1,10		1,10	ac		
0,88	0,80	1,20		1,50			
1,00	0,80	1,20		1,95			
1,13	0,80	1,20		2,05			
1,25	0,80	1,20		2,05			
1,50	0,80	1,20		2,05			
2,00	0,80	1,20		---			

**Befestigungstypen**



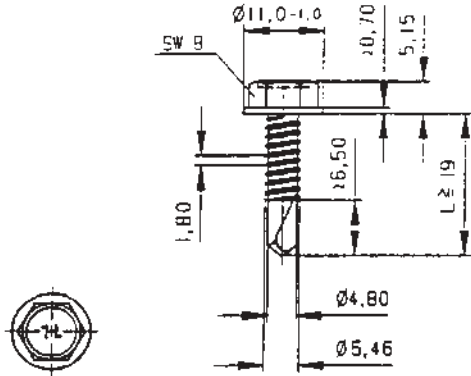
Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 03 Z 5,5**

Blatt 4.93  
Anlage zum Ergänzungsbescheid  
vom 8. November 1996  
Nr. Z-14.1-4



**Verbindungselement** Bohrschraube  
TS-MD03Z 5,5xL  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe** Schraube  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk



**Hersteller** She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

**Vertrieb** HILTI DEUTSCHLAND GmbH  
Elsenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224

**Bauteil II** S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx)

Blechdicke [mm]	1,50		2,00		3,00		4,00		5,00		6,00		Belastungsart
	anschlagerorientiert verschrauben!		Gesamtdicke $\Sigma(t_I + t_{II})$ [mm]		bis 2,65		bis 5,50						
Anzugsmoment (Richtwert)			Anzugsmoment [Nm]		(4)		(8)						
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63		1,30	ac	1,30	ac	1,30	ac					 Querkraft zul. $F_Q$ kN
	0,75		1,85	ac	1,85	ac	1,85	ac					
	0,88		2,25	ac	2,50	ac	2,50	ac					
	1,00		2,25		3,25	ac	3,25	a					
	1,13		2,45		3,50		3,95						
	1,25		2,65		3,70		4,65						
	1,50		3,10		4,15		5,05						
	2,00		3,90		4,70		-----						
Bauteil II	0,63		0,85	ac	0,85	ac	0,85	ac					 Zugkraft zul. $F_Z$ kN
	0,75		1,10	ac	1,10	ac	1,10	ac					
	0,88		1,40		1,45	ac	1,45	ac					
	1,00		1,40		1,75	ac	1,75	a					
	1,13		1,40		2,15		2,15						
	1,25		1,40		2,45		2,55						
	1,50		1,40		2,45		3,45						
	2,00		1,40		2,45		-----						



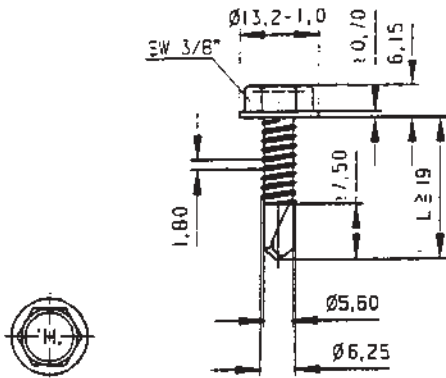
Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.  
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

Blatt 4.95

Anlage zum Ergänzungsbescheid vom 8. November 1996 Nr. Z-14.1-4

**Schrauben**  
Bohrschrauben

**MD 03 Z 6,3**



**Verbindungselement**

Bohrschraube  
TS-MD03Z 6,3xL  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

Schraube  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk



**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

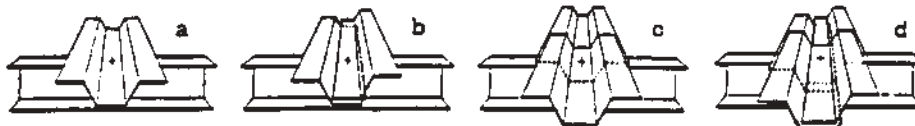
**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224

**Bauteil II** S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx)

Blechdicke [mm]	1,50	2,00	3,00	4,00	5,00	6,00	Belastungsart	
	anslagorientiert verschrauben!		Gesamtdicke $\Sigma(t_I + t_{II})$ [mm]		bis 2,65	bis 6,00		
Anzugsmoment (Richtwert)			Anzugsmoment (Nm)		(4)	(8)		
Bauteil I Blechte in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	1,55	ac	1,55	abcd	1,55	abcd	 Querkraft zul. $F_Q$ kN
	0,75	2,10	ac	2,10	abcd	2,10	abcd	
	0,88	2,70	ac	2,70	ac	2,70	abcd	
	1,00	2,80		3,30	ac	3,30	ac	
	1,13	2,85		3,90		4,00	ac	
	1,25	2,95		4,50		4,75	ac	
	1,50	3,50		4,85		6,15		
	2,00	3,50		4,85		6,15		
Bauteil I Blechte in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,95	ac	0,95	abcd	0,95	abcd	 Zugkraft zul. $F_Z$ kN
	0,75	1,30	ac	1,30	abcd	1,30	abcd	
	0,88	1,55	ac	1,70	ac	1,70	abcd	
	1,00	1,55		2,15	ac	2,15	ac	
	1,13	1,55		2,65		2,65	ac	
	1,25	1,55		2,80		3,20	ac	
	1,50	1,55		2,80		3,45		
	2,00	1,55		2,80		3,60		

Befestigungstypen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

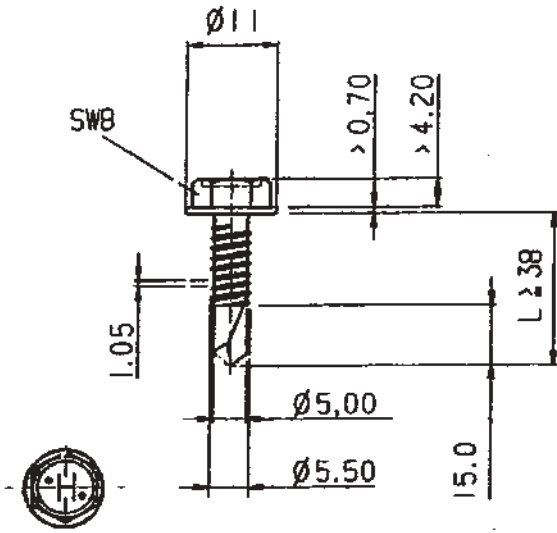
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**

**MD 05Z 5,5**

Blatt 4.123  
Anlage zum Ergänzungsbescheid  
vom 5. Oktober 2000  
Zufassungs-Nr. Z-14.1-4

Bohrschrauben



**Verbindungselement** Bohrschraube MD05Z 5,5\*L  
Kopf ähnlich DIN 7504-K

**Werkstoffe** Schraube  
Stahl einsatzgehärtet;  
verzinkt, gal. Zn8bk

**Hersteller** Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup>. Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

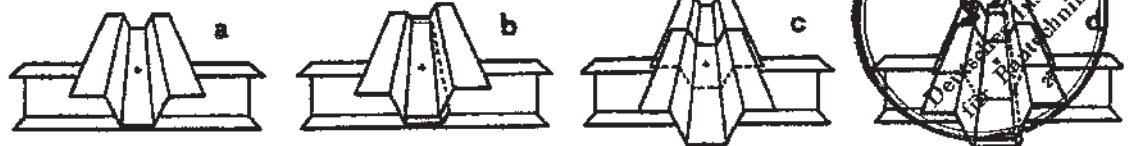
**Vertrieb** HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-112

maximale Durchdringung:  $\sum (t_1 + t_{II}) \leq 12,00$  mm

**Bauteil II:** S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx)

Blechdicke [mm]	2,00	3,00	4,00	5,00	6,00	>6,00	Belastungsart					
	anschlagorientiert verschrauben (5 Nm)											
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	/	/	1,35	abcd	1,35	abcd	1,35	abcd	1,35	abcd	 Querkraft zul. $F_Q$ kN
	0,75			1,70	abcd	1,70	abcd	1,70	abcd			
	0,88			2,10	ac	2,10	ac	2,10	ac			
	1,00			2,45	ac	2,45	ac	2,45	ac			
	1,13			2,85	ac	2,85	ac	2,85	ac			
	1,25			3,25		3,25		3,25				
	1,50			3,80		3,80		3,80				
	2,00			3,80		3,80		3,80				
Bauteil I, Blechdicke in mm Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	0,63	/	/	0,75	abcd	0,75	abcd	0,75	abcd	0,75	abcd	 Zugkraft zul. $F_z$ kN
	0,75			0,90	abcd	0,90	abcd	0,90	abcd			
	0,88			1,05	ac	1,05	ac	1,05	ac			
	1,00			1,20	ac	1,20	ac	1,20	ac			
	1,13			1,35	ac	1,35	ac	1,35	ac			
	1,25			1,50		1,50		1,50				
	1,50			1,80		1,80		1,80				
	2,00			2,40		2,40		2,40				

Befestigungs-Typen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

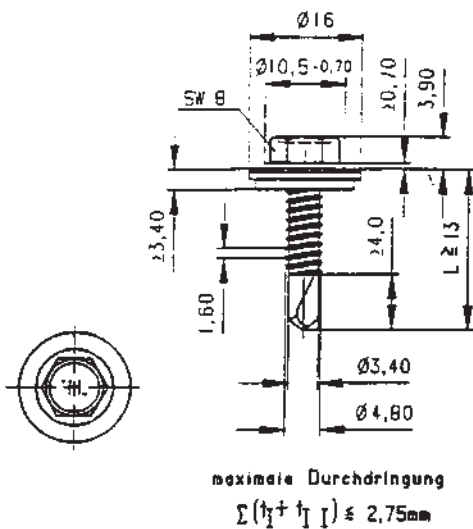


**Schrauben**  
Bohrschrauben

**MD 51 Z 4,8**

Blatt 3.53

Anlage zum Ergänzungsbescheid  
vom 8. November 1996  
Nr. Z-14.1-4



**Verbindungs-  
element**

Bohrschraube  
TS-MD51Z 4,8xL mit Dichtscheibe  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk

**Scheibe**  
Stahl St 02-Z-275 DIN EN 10143  
verzinkt nach DIN 267 Teil 9  $\geq 15\mu\text{m}$   
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224



**Bauteil II S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx)**

Blechdicke [mm]	0,63								0,75		0,88		1,00		1,13		1,25		1,50		2,00		Belastungs- art
	anschiagorientiert verschrauben!										Gesamtdicke $\Sigma(t_1 + t_2)$ [mm]				bis 1,25		bis 2,75		Querkraft zul. $F_Q$ kN				
Anzugs- moment (Richtwert)											Anzugsmoment [Nm]				(2)		(5)			Zugkraft zul. $F_Z$ kN			
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,65	0,90	1,15	1,45	1,45	ac	1,45	ac	1,45	ac	1,45	ac	1,45	ac	1,45	ac	1,45	ac		1,45	ac	
	0,75	0,65	0,90	1,15	1,45	1,75		1,85	ac	1,85	ac	1,85	ac	1,85	a								
	0,88	0,65	0,90	1,15	1,45	1,75		2,05		2,40	a												
	1,00	0,65	0,90	1,15	1,45	1,75		2,05		2,80													
	1,13	0,65	0,90	1,15	1,45	1,75		2,05		2,80													
	1,25	0,65	0,90	1,15	1,45	1,75		2,05		2,80													
	1,50	0,65	0,95	1,35	1,80	2,35		2,95															
	2,00																						
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,40	0,50	0,65	0,75	0,90	ac	1,05	ac	1,30	ac	1,30	ac	1,30	ac	1,30	ac	1,30	ac	1,30	ac		
	0,75	0,40	0,50	0,65	0,75	0,90		1,05	ac	1,35	ac	1,35	a										
	0,88	0,40	0,50	0,65	0,75	0,90		1,05		1,35	a												
	1,00	0,40	0,50	0,65	0,75	0,90		1,05		1,35													
	1,13	0,40	0,50	0,65	0,75	0,90		1,05		1,35													
	1,25	0,40	0,50	0,65	0,75	0,90		1,05		1,35													
	1,50	0,40	0,50	0,65	0,75	0,90		1,05		1,35													
	2,00																						

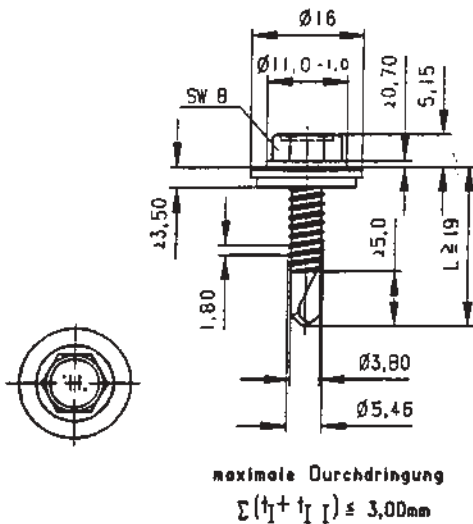


Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.  
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 51 Z 5,5**

Blatt 3.55  
Anlage zum Ergänzungsbescheid  
vom 8. November 1996  
Nr. Z-14.1-4



**Verbindungs-  
element**

Bohrschraube  
TS-MD51Z 5,5xL mit Dichtscheibe  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk

**Scheibe**  
Stahl St 02-Z-275 DIN EN 10143  
verzinkt nach DIN 267 Teil 9  $\geq 15\mu\text{m}$   
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

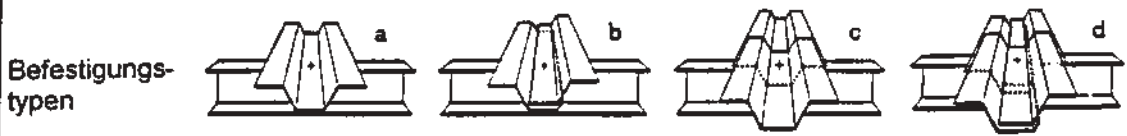
**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224



**Bauteil II** S235xx (für  $t_{II} \leq 3\text{ mm}$  auch S280GD+xx oder S320GD+xx)

Blechdicke [mm]	Blechdicke [mm]								Anzugs- moment (Richtwert)	Belastungs- art			
	0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00					
Bauteil I Stahlblech S280GD+xx oder S320GD+xx	anschlagorientiert		Gesamtdicke $\Sigma(t_1 + t_2)$ [mm]				bis 1,25		bis 3,00		<p>Querkraft zul. <math>F_Q</math> kN</p> <p>Zugkraft zul. <math>F_Z</math> kN</p>		
	verschrauben!		Anzugsmoment [Nm]				(3)		(6)				
	0,63	0,65	0,85	1,15	1,45	1,60	1,60	ac	1,60	ac		1,60	ac
	0,75	0,65	0,85	1,15	1,45	1,80	2,00	ac	2,00	ac		2,00	a
	0,88	0,65	0,85	1,15	1,45	1,80	2,10		2,40	a		2,40	a
	1,00	0,65	0,85	1,15	1,45	1,80	2,10		2,80			2,80	a
	1,13	0,80	1,00	1,30	1,60	1,90	2,20		2,90				
	1,25	0,80	1,00	1,30	1,75	2,05	2,35		3,00				
	1,50	0,80	1,00	1,30	2,30	2,55	2,75		3,25				
	2,00	0,80	1,00	1,30	2,30								
	0,63	0,45	0,60	0,75	0,90	1,05	1,20	ac	1,55	ac		1,60	ac
	0,75	0,45	0,60	0,75	0,90	1,05	1,20	ac	1,55	ac		1,95	a
0,88	0,45	0,60	0,75	0,90	1,05	1,20		1,55	a	2,35	a		
1,00	0,45	0,60	0,75	0,90	1,05	1,20		1,55		2,35	a		
1,13	0,45	0,60	0,75	0,90	1,05	1,20		1,55					
1,25	0,45	0,60	0,75	0,90	1,05	1,20		1,55					
1,50	0,45	0,60	0,75	0,90	1,05	1,20		1,55					
2,00	0,45	0,60	0,75	0,90									

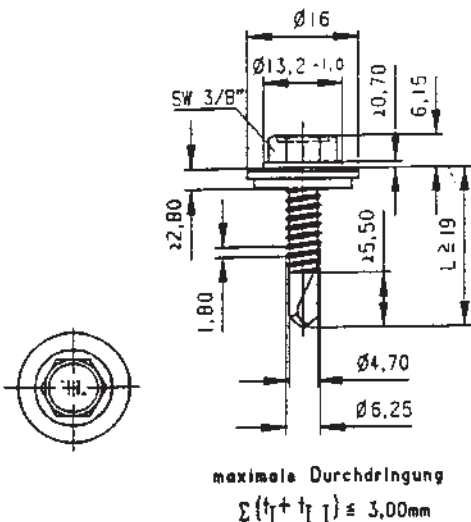


Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.  
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 51 Z 6,3**

Blatt 3.57  
Anlage zum Ergänzungsbescheid  
vom 8. November 1996  
Nr. Z-14.1-4



**Verbindungselement**

Bohrschraube  
TS-MD51Z 6,3xL mit Dichtscheibe  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk

**Scheibe**

Stahl St 02-Z-275 DIN EN 10143  
verzinkt nach DIN 267 Teil 9  $\geq 15\mu\text{m}$   
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

**Vertrieb**

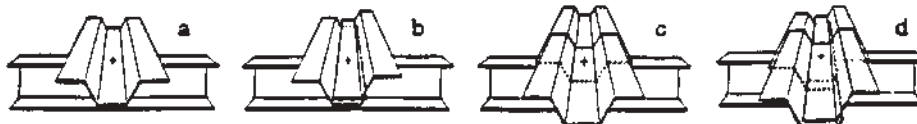
HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224



**Bauteil II S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx)**

Blechdicke [mm]	0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00	Belastungsart					
Anzugsmoment (Richtwert)	anschlagorientiert verschrauben!		Gesamtdicke $\Sigma(t_I + t_{II})$ [mm]				bis 1,25	bis 3,00						
			Anzugsmoment [Nm]				(4)	(8)						
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,80	1,05	1,35	1,65	1,65	ac	1,65	ac	1,65	ac	1,65	ac	<p>Querkraft zul. <math>F_Q</math> kN</p>
	0,75	0,80	1,05	1,35	1,65	2,05		2,10	ac	2,10	ac	2,10	a	
	0,88	0,85	1,10	1,40	1,70	2,05		2,20		2,60	ac	2,60	a	
	1,00	0,90	1,20	1,50	1,75	2,05		2,30		2,90		3,15	a	
	1,13	0,90	1,20	1,50	1,75	2,10		2,40		3,10				
	1,25	0,90	1,20	1,50	1,80	2,10		2,50		3,25				
	1,50	1,00	1,30	1,65	2,00	2,40		2,75		3,60				
	2,00	1,00	1,30	1,65	2,00									
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,45	0,60	0,75	0,90	1,05	ac	1,20	ac	1,55	ac	1,60	ac	<p>Zugkraft zul. <math>F_Z</math> kN</p>
	0,75	0,45	0,60	0,75	0,90	1,05		1,20	ac	1,55	ac	2,00	a	
	0,88	0,45	0,60	0,75	0,90	1,05		1,20		1,55	ac	2,30	a	
	1,00	0,45	0,60	0,75	0,90	1,05		1,20		1,55		2,30	a	
	1,13	0,45	0,60	0,75	0,90	1,05		1,20		1,55				
	1,25	0,45	0,60	0,75	0,90	1,05		1,20		1,55				
	1,50	0,45	0,60	0,75	0,90	1,05		1,20		1,55				
	2,00	0,45	0,60	0,75	0,90									

**Befestigungstypen**



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**

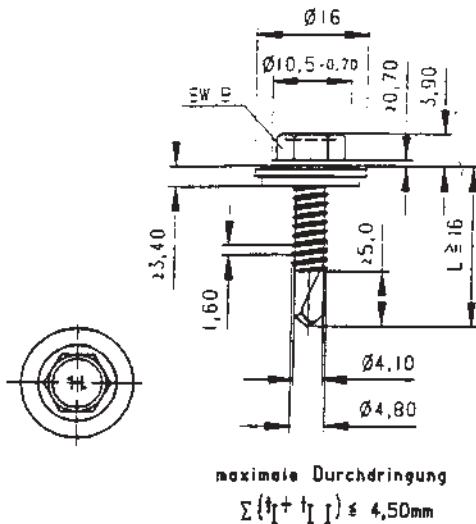
**MD 53 Z 4,8**

Bohrschrauben

Blatt 4.92

Anlage zum Ergänzungsbescheid vom 8. November 1996

Nr. Z-14.1-4



**Verbindungselement**

Bohrschraube  
TS-MD53Z 4,8xL mit Dichtscheibe  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk

**Scheibe**  
Stahl St 02-Z-275 DIN EN 10143  
verzinkt nach DIN 267 Teil 9  $\geq 15\mu\text{m}$   
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224



**Bauteil II S235xx (für  $t_{II} \leq 3\text{ mm}$  auch S280GD+xx oder S320GD+xx)**

Blechdicke [mm]	Blechdicke [mm]						Belastungsart	
	1,50	2,00	3,00	4,00	5,00	6,00		
Anzugsmoment (Richtwert)	anschlagorientiert verschrauben!		Gesamtdicke $\Sigma(t_I + t_{II})$ [mm]					
			Anzugsmoment [Nm]		bis 2,15 (2)	bis 4,50 (6)		
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	1,20	ac	1,35	ac	1,35	ac	 Querkraft zul. $F_Q$ kN
	0,75	1,50		1,75	ac	1,95	ac	
	0,88	1,70		2,05		2,70		
	1,00	1,85		2,35		3,30		
	1,13	2,00		2,50		3,35		
	1,25	2,20		2,65		3,40		
	1,50	2,45		2,80		3,45		
	2,00	2,45		2,80		---		
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	0,85	ac	1,30	ac	1,30	ac	 Zugkraft zul. $F_Z$ kN
	0,75	0,85		1,35	ac	1,65	ac	
	0,88	0,85		1,35		2,10		
	1,00	0,85		1,35		2,50		
	1,13	0,85		1,35		2,60		
	1,25	0,85		1,35		2,60		
	1,50	0,85		1,35		2,60		
	2,00	0,85		1,35		---		



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.  
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

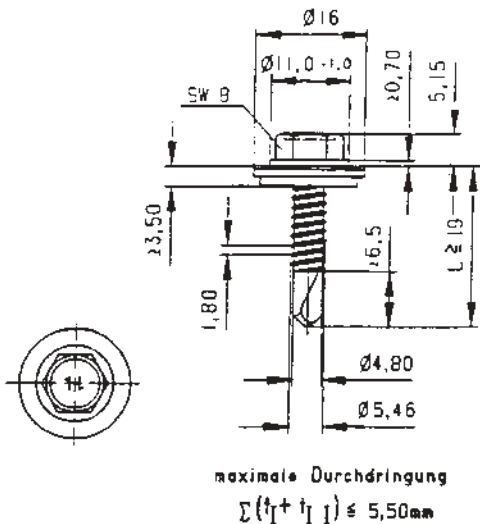
Blatt 4.94

Anlage zum Ergänzungsbescheid vom 8. November 1996 Nr. Z-14.1-4

# Schrauben

## MD 53 Z 5,5

Bohrschrauben



### Verbindungselement

Bohrschraube  
TS-MD53Z 5,5xL mit Dichtscheibe  
Kopf ähnlich DIN 7504 Form A

### Werkstoffe

Schraube  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk

### Scheibe

Stahl St 02-Z-275 DIN EN 10143  
verzinkt nach DIN 267 Teil 9  $\geq 15\mu\text{m}$   
mit aufvulkanisierter Elastomer-Dichtung

### Hersteller

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

### Vertrieb

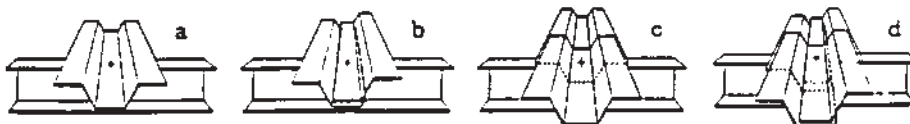
HILTI DEUTSCHLAND GmbH  
Eisenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224



Bauteil II S235xx (für  $t_{II} \leq 3$  mm auch S280GD+xx oder S320GD+xx)

Blechdicke [mm]	1,50		2,00		3,00		4,00		5,00		6,00		Belastungsart
	anschlagentorientiert verschrauben!		Gesamtdicke $\Sigma(t_I + t_{II})$ [mm]		Anzugsmoment [Nm]		bis 2,65 (4)		bis 5,50 (8)				
Bauteil I Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	/	1,55	ac	1,55	ac	1,55	abcd	/	/	/	/	 Querkraft zul. $F_Q$ kN
	0,75	/	1,90	ac	1,90	ac	1,90	ac	/	/	/	/	
	0,88	/	2,30	/	2,30	ac	2,30	a	/	/	/	/	
	1,00	/	2,65	/	2,70	/	2,70	a	/	/	/	/	
	1,13	/	2,65	/	3,10	/	3,10	/	/	/	/	/	
	1,25	/	2,65	/	3,80	/	4,90	/	/	/	/	/	
	1,50	/	3,05	/	4,55	/	6,00	/	/	/	/	/	
	2,00	/	3,90	/	4,85	/	---	/	/	/	/	/	
Bauteil II Blechdicke in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	/	1,50	ac	1,60	ac	1,60	abcd	/	/	/	/	 Zugkraft zul. $F_Z$ kN
	0,75	/	1,50	ac	1,95	ac	1,95	ac	/	/	/	/	
	0,88	/	1,50	/	2,40	ac	2,40	a	/	/	/	/	
	1,00	/	1,50	/	2,65	/	2,80	a	/	/	/	/	
	1,13	/	1,50	/	2,65	/	3,25	/	/	/	/	/	
	1,25	/	1,50	/	2,65	/	3,60	/	/	/	/	/	
	1,50	/	1,50	/	2,65	/	3,60	/	/	/	/	/	
	2,00	/	1,50	/	2,65	/	---	/	/	/	/	/	

Befestigungstypen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

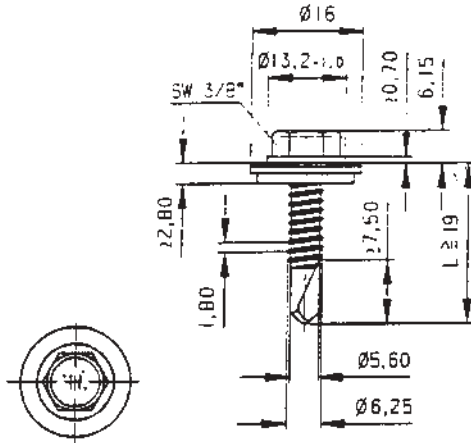
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

**Schrauben**  
Bohrschrauben

**MD 53 Z 6,3**

Blatt 4.96

Anlage zum Ergänzungsbescheid  
vom 8. November 1996  
Nr. Z-14.1-4



maximale Durchdringung  
 $\sum(t_I + t_{II}) \leq 6,00\text{mm}$

**Verbindungselement**

Bohrschraube  
TS-MD53Z 6,3xL mit Dichtscheibe  
Kopf ähnlich DIN 7504 Form K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet  
verzinkt gal Zn 8 bk

**Scheibe**

Stahl St 02-Z-275 DIN EN 10143  
verzinkt nach DIN 267 Teil 9  $\geq 15\mu\text{m}$   
mit aufvulkanisierter Elastomer-Dichtung

**Hersteller**

She Fung Screws Co. Ltd.  
3rd. Floor, Cheng Teh Road  
Sec. 7, Pe - Tou  
Taipei, Taiwan

**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Elsenheimer Str. 31, 80687 München  
Tel. 089 / 57001-0, Fax: 089 / 57001-224



**Bauteil II S235xx (für  $t_{II} \leq 3\text{ mm}$  auch S280GD+xx oder S320GD+xx)**

Blechdicke [mm]	1,50	2,00	3,00	4,00	5,00	6,00	Belastungsart	
<b>Anzugsmoment (Richtwert)</b>	anschlagorientiert verschrauben!		Gesamtdicke $\sum(t_I + t_{II})$ [mm]		bis 2,65	bis 6,00		
			Anzugsmoment [Nm]		(4)	(8)		
<b>Bauteil I</b> Blechteile in mm Stahlblech S280GD+xx oder S320GD+xx	0,63	1,50	ac	1,50	abcd	1,50	abcd	<p>Querkraft zul. <math>F_Q</math> kN</p>
	0,75	1,90	ac	1,90	abcd	1,90	abcd	
	0,88	2,40		2,40	ac	2,40	abc	
	1,00	2,55		2,85	ac	2,85	ac	
	1,13	2,75		3,40	ac	3,40	a	
	1,25	3,05		3,95	ac	3,95	a	
	1,50	3,20		4,50		5,15	a	
	2,00	3,90		4,70		5,40		
	0,63	1,55	ac	1,65	abcd	1,65	abcd	<p>Zugkraft zul. <math>F_Z</math> kN</p>
	0,75	1,55	ac	2,00	acbd	2,00	abcd	
	0,88	1,55		2,40	ac	2,40	abc	
	1,00	1,55		2,80	ac	2,80	ac	
	1,13	1,55		2,80	ac	3,20	a	
	1,25	1,55		2,80	ac	3,60	a	
	1,50	1,55		2,80		3,60	a	
	2,00	1,55		2,80		3,60		



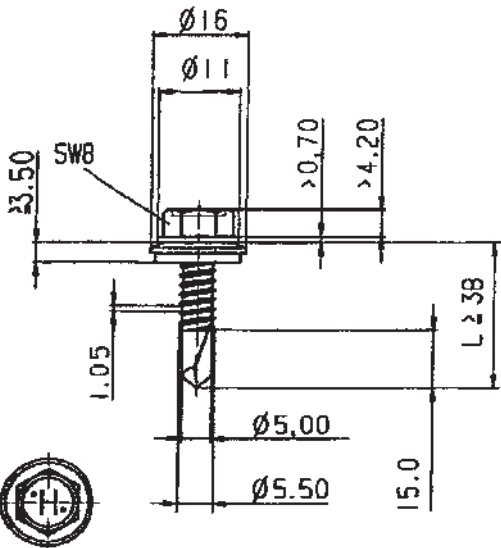
Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.  
Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

Blatt 4.124  
Anlage zum Ergänzungsbescheid  
vom 5. Oktober 2000  
Zulassungs-Nr. Z-14.1-4

# Schrauben

## MD 55Z 5,5

Bohrschrauben



maximale Durchdringung:  $\sum (t_I + t_{II}) \leq 12,00 \text{ mm}$

**Verbindungs-  
element**

Bohrschraube MD55Z 5,5\*L  
Kopf ähnlich DIN 7504-K

**Werkstoffe**

**Schraube**  
Stahl einsatzgehärtet;  
verzinkt, gal. Zn8bk

**Scheibe**

Stahl verzinkt min. 8 µm  
Mit Elastomer-Dichtung

**Hersteller**

Sheh Fung Screws Co. Ltd.  
3<sup>rd</sup>. Floor, Cheng Teh Road  
Sec. 7, Pe-Tou  
Taipei, Taiwan

**Vertrieb**

HILTI DEUTSCHLAND GmbH  
Hiltistr. 2, 86916 Kaufering  
Tel.: (08191) 90-0, Fax: (0891) 90-112

Bauteil II: S235xx (für  $t_{II} \leq 3 \text{ mm}$  auch S280GD+xx oder S320GD+xx)

Blechdicke  
(mm)

2,00

3,00

4,00

5,00

6,00

>6,00

Anzugs-  
moment  
(Richtwert)

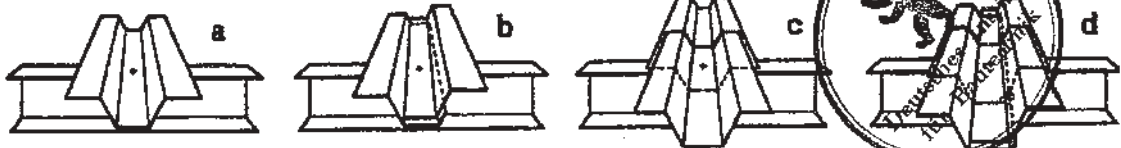
anschlagerorientiert verschrauben

Belastungsart

( 5 Nm )

Blechteile I, Blechdicke in mm. Feuerverzinktes Stahlblech S280GD+xx oder S320GD+xx	anschlagerorientiert verschrauben												Belastungsart	
	( 5 Nm )													
0,63	/	/	/	1,65	abcd	1,65	abcd	1,65	abcd	1,65	abcd	1,65	abcd	 Querkraft zul. $F_Q$ kN
0,75	/	/	/	1,95	ac	1,95	ac	1,95	abcd	1,95	abcd	1,95	abcd	
0,88	/	/	/	2,20	ac	2,20	ac	2,20	abcd	2,20	abcd	2,20	abcd	
1,00	/	/	/	2,45	ac	2,45	ac	2,45	ac	2,45	ac	2,45	ac	
1,13	/	/	/	2,70		2,70	ac	2,70	ac	2,70	ac	2,70	ac	
1,25	/	/	/	3,65		3,65	ac	3,65	ac	3,65	ac	3,65	ac	
1,50	/	/	/	3,95		3,95		3,95		3,95		3,95		
2,00	/	/	/	4,55		4,55		4,55		4,55		4,55		
0,63	/	/	/	1,45	abcd	1,45	abcd	1,45	abcd	1,45	abcd	1,45	abcd	 Zugkraft zul. $F_Z$ kN
0,75	/	/	/	1,60	ac	1,60	ac	1,60	abcd	1,60	abcd	1,60	abcd	
0,88	/	/	/	1,70	ac	1,70	ac	1,70	abcd	1,70	abcd	1,70	abcd	
1,00	/	/	/	1,80	ac	1,80	ac	1,80	ac	1,80	ac	1,80	ac	
1,13	/	/	/	1,90		1,90	ac	1,90	ac	1,90	ac	1,90	ac	
1,25	/	/	/	2,00		2,00	ac	2,00	ac	2,00	ac	2,00	ac	
1,50	/	/	/	2,15		2,15		2,15		2,15		2,15		
2,00	/	/	/	2,45		2,45		2,45		2,45		2,45		

Befestigungs-  
Typen



Die bei Querbeanspruchung infolge Temperatur ohne rechnerischen Nachweis zulässigen Befestigungstypen sind jeweils neben den zulässigen Kräften in der Tabelle angegeben.

Bei Zwischenwerten der Bauteildicken I oder II ist jeweils die zulässige Quer- und Zugkraft der geringeren Bauteildicken zu wählen.

Hilti (Hong Kong) Limited  
17/F, Tower 6,  
China Hong Kong City,  
33 Canton Road,  
Tsimshatsui,  
Kowloon.

4 June, 1997

Attention: Mr. Denny Wu

Dear Sir,

**Procedures for building materials submission**

I refer to your letter dated 19 May, 1997 concerning the above.

2. Please be advised that there is no provision under the Buildings Ordinance for the Building Authority to approve any proprietary building products. Under the Buildings Ordinance, authorized persons and/or registered structural engineers are required to supervise building works including the selection and installation of proprietary building products and to certify compliance with the Buildings Ordinance upon completion of works. They are therefore responsible for ensuring the health and structural safety requirements, inter alia, of these building products in the building projects which they have been appointed by the developer to co-ordinate and supervise. It is also their responsibility to ensure these products have been installed in accordance with the manufacturers' specifications and complied with the Buildings Ordinance and Regulations.

3. In establishing the acceptability of the proprietary products in building works, reference may be made to the performance standards laid down in Building (Construction) Regulations 1990 and the current Practice Note for Authorized Persons and Registered Structural Engineers 140 in which performance requirements for compliance are given. Reliance may also be placed on the test/assessment report prepared by a recognized laboratory or an equivalent establishment.

4. Before the proprietary products are installed in a building project, the authorized person and/or registered structural engineer appointed for the project should be approached by the manufacturers or their agents for advice and guidance. **Prior approval/acceptance from the Buildings Department is not required.**

5. Generally, all relevant information supporting the use of the proprietary products in building works under the Buildings Ordinance should be submitted associated with the prescribed plans for approval on project basis.

/ Notwithstanding....



- 2 -

6. Notwithstanding the above, the proprietary building products to which 'No objection' letters have been given are still recognized as accepted constructional materials to be used in building works under the Buildings Ordinance provided that all conditions specified in the letters are satisfied. You are informed that the procedures currently adopted by the Building Authority for processing statutory approval of plans which involve the use of these proprietary building products remain unchanged.

7. It is a fact that the 'No objection' letter giving general acceptance to a proprietary building product is based on the technical information submitted to this Department at the time of its application. Should there be any significant modification to these technical information, the product will certainly be considered as 'new' product. The acceptability of such proprietary product in building works should be evaluated by the authorized person and/or registered structural engineer appointed for the project as mentioned above.

8. Should you have any further queries to the above, please feel free to contact the undersigned or Mr. T.C. Kan of this office at phone no. 2626 1583.

Yours faithfully,



(K.S. Chang)

Technical Secretary/Structural  
for Building Authority

tck/



**Attn. : To whom it may concern**

Date : 27 October 2005

Ref. : LE/023/AC/05

**Subject : Hilti S-MD Self-drilling Screw or S-MP Self-tapping Screw**

Dear Sirs / Madams,

Enclosed please find the information of Hilti S-MD Self-drilling Screw or S-MP Self-tapping Screw.

Brand Name : Hilti  
Model Name : Hilti S-MD Self-drilling Screw / S-MP Self-tapping Screw  
Manufacturer : Hilti Corporation  
Address of Manufacturer : FL-9494, Principality of Liechtenstein.  
Supplier : Hilti (Hong Kong) Ltd  
Address of Supplier : 17/F, Tower 6, China Hong Kong City, 33 Canton Road,  
Tsim Sha Tsui, Kowloon, Hong Kong.  
Country of Origin : Taiwan  
Name of Factory : Sheh Fung Screws Co Ltd (OEM Partner of Hilti)  
Address of Factory : 3/F, Cheung Teh Road, Sec. 7, Pe-Tou, Taipei, Taiwan.

Should you have further questions, please do not hesitate to contact our Technical Representatives or Customer Service Hotline at 8228-8118.

Yours sincerely,

Hilti (Hong Kong) Ltd.



  
Alex Cheung

Marketing Manager

**Hilti (Hong Kong) Limited**  
17/F | Tower 6 | China Hong Kong City  
33 Canton Road | Tsim Sha Tsui  
Kowloon | Hong Kong  
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# Job/Application Reference

24-Aug-11



<u>Ref No</u>	<u>Date</u>	<u>Project</u>	<u>Contractor</u>	<u>Consulting Engineer</u>	<u>Product</u>	<u>Application</u>
39471	11-09	Macau Dome	IAU LUEN-COMANHIA DE CONSTRUCAO	Forum Consultants	Self-drilling screw S-MD55Z 5,5X38	sheet metal deck fixing
38904	09-09	Tung Ying Re-development, Nathan Road	REX DECORATION LTD		Self-drilling screw S-MD03Z 5,5X25	sheet metal deck fixing
38761	08-09	Airport	CERATEC INTERNATIONAL (HK) LTD		Self-drilling screw S-MD43S 5,5x32	fixing on steel structural
38760	08-09	Airport	CERATEC INTERNATIONAL (HK) LTD		Self-drilling screw S-MD43S 5,5x25	fixing on steel structural
38527	07-09	The Venetian Casino Resort (Parcel 1)	CHEONG WAI MAN CONSTRUCT CIVIL		Self-drilling screw S-MD55S 5,5X63	fixing on curtain wall / cladding works
38526	07-09	The Venetian Casino Resort (Parcel 1)	CHEONG WAI MAN CONSTRUCT CIVIL		Self-drilling screw S-MD53S 5,5X25	fixing on curtain wall / cladding works
38392	07-09	Kowloon Southern Link (KSL - Link200, 300 & 400)	COMMANDING VIEW ENG CO LTD		Self-drilling screw S-MD53Z 6,3X50	fastening of drywall panel

# Job/Application Reference

21-Dec-05



<u>Ref No</u>	<u>Date</u>	<u>Project</u>	<u>Contractor</u>	<u>Consulting Engineer</u>	<u>Product</u>	<u>Application</u>	<u>Photo Ref</u>
4283	04-05	Housing Development at Kwai Chung Phase 3	Yau Lee Const Co / tennyson Co Ltd	Housing Department	S-MD55Z 5.5X38	Fixing door frame through steel bracket to Ytong wall	N/A
4055	04-05	Cyberport Residential Development: Phase RIII and RIVA	China State Const / Perfect Team Corp	Siu Yin Wai & Asso	S-MD 53S 5.5x25	Window fixing	N/A
4049	04-05	Angle Station & Cable Car Terminus	Maeda Corporation / Craft Projects	Ove Arup & Partner	S-MP 52 S 6.3 x 50	Cladding fixing	N/A
4282	03-05	Tsuen Wan Police Headquarter	Hip Hing Const Co Ltd	Architectural Services Department	S-MD53Z 4.8X32	Sheet metal decking fixing	N/A
4043	03-05	Hong Kong Disneyland: Disneyland Hotel	Shimuzi China State JV	Ove Arup & Partner	S-MD 01Z 4.8x19	Sheet metal decking fixing	N/A
4032	02-05	Hong Kong Disneyland: Main Street USA	Taisei Hip Hing JV / Gradation Design & Eng Co	Meinhardt HK Ltd	S-MP53S 6.5X75	Advertising sign & lighting	N/A
4281	02-05	Pedestrian Flyover at Gloucester Rd Causeway Bay	Kier / Headwin Engrg Ltd		S-MD 51S 4.8 / S-MD 53S 5.5	Sheet metal decking fixing	N/A
4034	02-05	Hong Kong Disneyland: Tomorrowland & Fantasy Land	Shimuzi China State JV / Chan Ying Metal Works	Meinhardt HK Ltd	S-MP52Z 6.3X25	Sheet metal decking fixing for kiosk	N/A
4024	01-05	Hong Kong Disneyland: Main Street USA	Taisei Hip Hing J.V.	Meinhardt HK Ltd	S-MD55Z 5.5X38 / X50 / X63	General fixing to steel structure	N/A
2713	02-04	Disneyland Project - Main Street	Taisei-Hip Hing JV / Everbest Bldg. Products Ltd	Meinhardt (HK) Ltd	Self-drilling screws	Fixing the Promina Board to angle channel	N/A
2727	02-04	Fixing the cladding in bridge works	Top Express Eng Ltd		Self-drilling screws	Fixing the steel cladding	N/A
2611	01-04	Commercial Development at 12 Kai Shun Road Kowloon Bay (Metro Centre II)	China State / Winfield Bldg Mat'l & Eng Ltd	Wong & Cheng Consulting Engineer	Self-drilling screws	Fixing the acoustic panel works	N/A

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2763	01-04	Ho Tung Lau Advanced Works	Leighton / New Art (HK) Ltd	Ove Arup & Partners	Self-drilling screws	S-MD 03Z 5.5x32 Fixing a shield to cover the E & M servicing	N/A
3039	11-03	Improvement Works at Lo Wu Station	Kier-Leader JV / Southwell Construction Co Ltd	Kowloon Canton Railway Corporation	Self-drilling screws	5.5x38mm (7330) / 6.3x32 (7325) Fixing the roofing of the cover walkway	N/A
2728	11-03	Fixing the roofing of the park (General)	Jets Technics Co		Self-drilling screws	5.5x26 (7520) / 5.5x50 (7530) / 5.5x80 (7575) Fixing the decking works in parks	N/A
3194	11-03	Maintenance works at Commercial Building at Jeff Road Wanchai	Winfield Bldg Materials & Eng Ltd		Self-drilling screws	S-MD 03Z 5.5x25 / 5.5x32 Fixing the cladding works	N/A
3359	09-03	Renovation works at Alexandra House	Tai Yieh Construction / Wing Kan Steel & Iron Eng	Meihardt (HK) Ltd	Self-drilling screws	S-MD 03Z 5.5x19 / 05Z 5.5x38 / 05Z 5.5x50 Fixing the cladding works	N/A
2610	07-03	Commercial Development at 12 Kai Shun Road Kowloon Bay (Metro Centre II)	China State / Midi Alum Fabricator Ltd	Wong & Cheng Consulting Engineer	Self-drilling screws	6.3x38mm (7325) Cladding works	N/A
2969	07-03	Housing Re-development at Kwai Chung Phase V	Hip Hing Construction / Tennyson Co Ltd	Housing Department	Self-drilling screws	5.5x51mm (7320) Fixing the door frame	N/A
2968	07-03	Housing Redevelopment at Kwai Chung Phase IV	China State / Eastern Growing Engng Co	Housing Department	Self-drilling screws	S-MD 03 5.5x25 Fixing the decking work for cover walkway	N/A
3309	07-03	Police Headquarter at Wan Chai	China State Hip Hing JV / Winfield Bldg. Mat'l & Engng	Architectural Services Department	Self-drilling screws	S-MD 03Z 5.5x25 Fixing the cladding works	N/A
3373	05-03	Renovation Works in New World Centre at Tsim Sha Tsui	Tai Yieh Construction / Extensive Trading Co Ltd	Maunsell Consultants (Asia)	Self-drilling Screw (A2 Stainless Steel)	5.5x3.8 (7520) Fixing the aluminum plate to mullion in cladding works	N/A
3148	04-03	Ma On Shan Ext. - Tai Wai Depot (TCC500)	Gammon Skanska Bldg Ltd	Ove Arup & Partners	Self-drilling screws	5.5x38mm (7330) Fixing the firestop panel to I-beam	N/A
2613	04-03	Commercial Development at Admiralty (Pacific Forum)	Gammon Skanska Bldg. / Builders Federal (HK) Ltd	Ove Arup & Partners	Self-drilling screws (A2 Stainless Steel)	5.5x40mm (7530) Fixing the aluminium plate to mullion in curtain wall	N/A

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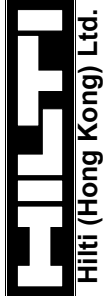


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3376	03-03	Renovation works in Quarry Bay Market	Sun Yick Eng Ltd	Architectural Services Department	Self-drilling screws (A2 Stainless Steel)	5.5x25mm (7510) Cladding works fixing	N/A
2777	01-03	Housing Development at Tsing King Road Tsing Yi Island (PSPS)	China Resource / Program International	Housing Department	Self-drilling screws	5.5x22 & 5.5x100 (7330) Fixing the decking of cover walkway	N/A
3358	01-03	Renovation works at Aberdeen Tunnel	Harvest Civil Eng Co Ltd		Self-drilling screws (A2 Stainless Steel)	5.5x50 (7510) / 5.5x40 (7530) Fixing the cladding works	N/A
3997	01-03	Widen the Island Eastern Corridor	Gammon Skanska / Active Way Ltd	Highways Department	Self-tapping screws	6.3x20 & 6.3x32 (7674) Fixing the sound barrier	N/A
2868	01-03	Housing Development at Tin Shui Wai Area 111	Chun Wo / Man Ho Engrg Co	Housing Department	Self-drilling screws (A2 Stainless Steel)	5.5x40 (7530) & 6.3x85 (7570) Fixing the decking on cover walkway	N/A
2975	06-02	Housing Re-development at Lam Tin Phase 6	Crystal Sky	Housing Department	Self-drilling screws (A2 Stainless Steel)	5.5x32 Fixing the decking in cover walkway	N/A
3876	04-02	West Rails - Kwai Tsing Tunnel (DB320)	Dragages Zen Pacific JV / Fu Shing Co Ltd		Self-drilling screws (A2 Stainless Steel)	5.5x25 Cladding works	N/A
3704	03-01	Tseung Kwan O Ext. - Po Lam Station & Tunnels (615)	Maeda Corp / Getstar Bullmat Ltd	Mass Transit Railway Corporation	Self-drilling screws	5.5x25 Fixing the suspension ceiling	N/A
2729	12-00	Fixing the sound barrier in indoor and outdoor application	Industrial Acoustics (HK) Ltd		Self-drilling screws (A2 Stainless Steel)	5.5x19 & 5.5x19 Fixing the sound barrier	N/A
3913	12-00	West Rails - Nam Cheong Station (CC402)	Balfour Beatty Zen Pacific JV / Lintex	Hyder Consulting Engineer	Self-drilling screws	5.5x25 Hoarding application	N/A
3026	11-00	Housing Re-development at Wong Tai Sin Phase 4	Eastern Growing Eng Ltd	Housing Department	Self-drilling screws	5.5x25 & 5.5x32 Fixing the suspension ceiling	N/A

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3370	08-00	Renovation works for interior decoration	See Lee Iron & Steel Eng Metal		Self-drilling screws	Fixing the dura steel	N/A
3369	07-00	Renovation works for interior decoration	Hang Tak Eng Co Ltd		Self-drilling screws	Metal decking fixing	N/A
2639	04-00	Commercial Development at Tseung Kwan O - Apple Daily Building	Kong Ngai Eng Ltd		Self-drilling screws	Fixing the air duct	N/A
3377	03-00	Renovation works in Somerset House Taikoo Place	Hop Shing (Far East) Ltd	Wong & Ouyang	Self-drilling screws	Fixing the metal deck	N/A
3365	02-00	Renovation works at interior decoration	Hong Kong Thermo Industry		Self-drilling screws	Fixing the air duct	N/A

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