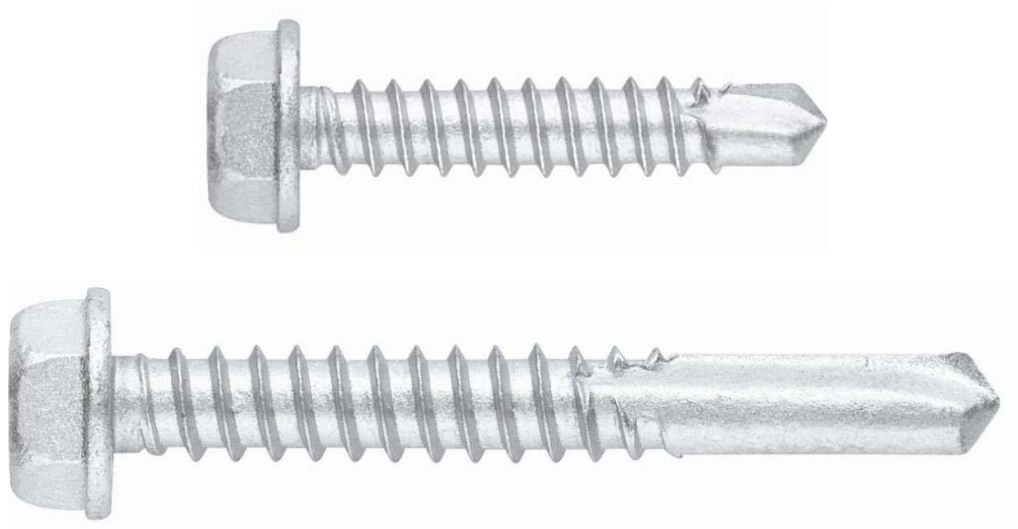


	TECHNICAL DATASHEET	Reference	FT BIE
		Date	30/10/12
		Revision	2
		Page	1 of 4
Denomination: TWO-METALS STAINLESS STEEL SELFDRILLING SCREW		Code	BIE



1.-CHARACTERISTICS

- Self-drilling stainless steel with steel tip welded to the screw body, which allows direct drilling and threading without pilot hole.
- It combines stainless steel properties (AISI 304/A2 head and body) with those of self-drilling screws (hardened steel tip), allowing its use as self-drilling screw with high corrosion protection.
- Silver ruspert covering, with high corrosion resistance, so screw tip is protected from corrosion in the highest aggressive conditions ISO 9227 salt spray test resistance > 500 hours
- Ideal where a combination of self-drilling and stainless steel properties are needed.
- Identical mechanical properties than self-drilling screws (ISO 10666).

2.- MATERIALS

ITEM	COMPONENT	MATERIAL	COVERING
1	TWO METALS SELF-DRILLING SCREW	Head and body: AISI 304 Tip: hardened steel C1035	Silver ruspert

3. INSTALLATION PARAMETERS

Parameter		ST 4.8	ST 5.5	ST 6.3
Maximum load [N]		250	350	350
Drilling speed	Steel [rpm]	1800 - 2500	1000 - 1800	
	Stainless steel [rpm]	1000 - 1500	600 - 1000	
Maximum drilling time [sec]		7	11	13
Maximum torque [Nm]		4.0	6.2	10.4

10 N ≈ 1 Kg;
10 Nm ≈ 1Kg m

Longer drilling times or faster drilling speeds can burn the point of the screw.

	TECHNICAL DATASHEET	Reference	FT BIE
		Date	30/10/12
		Revision	2
		Page	2 of 4
Denomination: TWO-METALS STAINLESS STEEL SELFDRILLING SCREW		Code	BIE

SCREW CHARACTERISTIC RESISTANCE*

SIZE	TENSION [KN]	SHEAR [KN]
ST 4.8	6.14	3.55
ST 5.5	8.31	4.80
ST 6.3	11.54	6.66

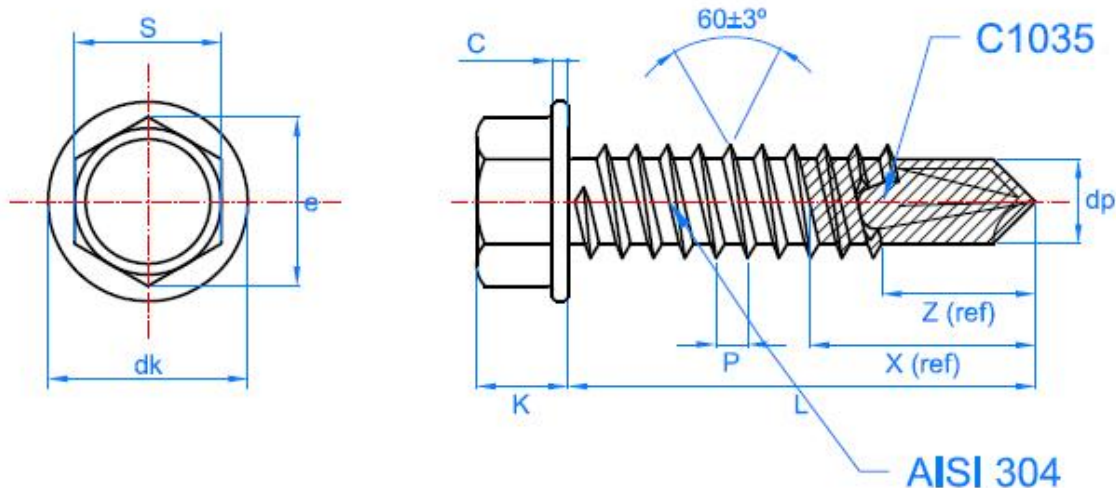
1 KN ≈ 100 Kg

* The characteristic resistance of a screw is that with a 95% probability to be achieved in a tension test. It depends on the mean ultimate resistance, the number of tests and the scatter of the results.

For tension loads, the resistance of the plates themselves must be considered, as their resistance is usually lower than the screw's itself, since the screw will probably break the plates.

4. GEOMETRICAL DIMENSIONS

4.1- BIE SCREW



Code		ST 4.8	ST 5.5	ST 6.3
dk: washer head diameter	[mm]	10	10.5	12.6
k: head thickness	[mm]	4.3	5.3	6.3
c: washer thickness	[mm]	0.9	1.0	1.0
s: nut key	[mm]	8	8	10
D: thread outer diameter	[mm]	4.80	5.46	6.25
d: thread inner diameter	[mm]	3.58	4.17	4.88
p: pitch	[mm]	1.6	1.8	1.8
dp: tip diameter	[mm]	3.9	4.65	5.5
z: cutting edge length	[mm]	5.1	7.9	9.3

	TECHNICAL DATASHEET	Reference	FT BIE
		Date	30/10/12
		Revision	2
		Page	3 of 4
Denomination: TWO-METALS STAINLESS STEEL SELFDRILLING SCREW		Code	BIE

X: stainless steel tip length	[mm]	14	18	16
L: lengths	[mm]	25	25 – 80	25
l _G : maximum thickness to be fixed	[mm]	9	L – 20	7
Magnetic power dopbits codes		BOCA008	BOCA008	BOCA010
Drilling range	[mm]	1.75 – 4.40	1.75 – 5.25	2.50 – 6.00

Allow a minimum of 2 mm clearance from material to be fixed to hardened steel tip, thus avoiding any possible corrosion, due to contact of dissimilar metals.

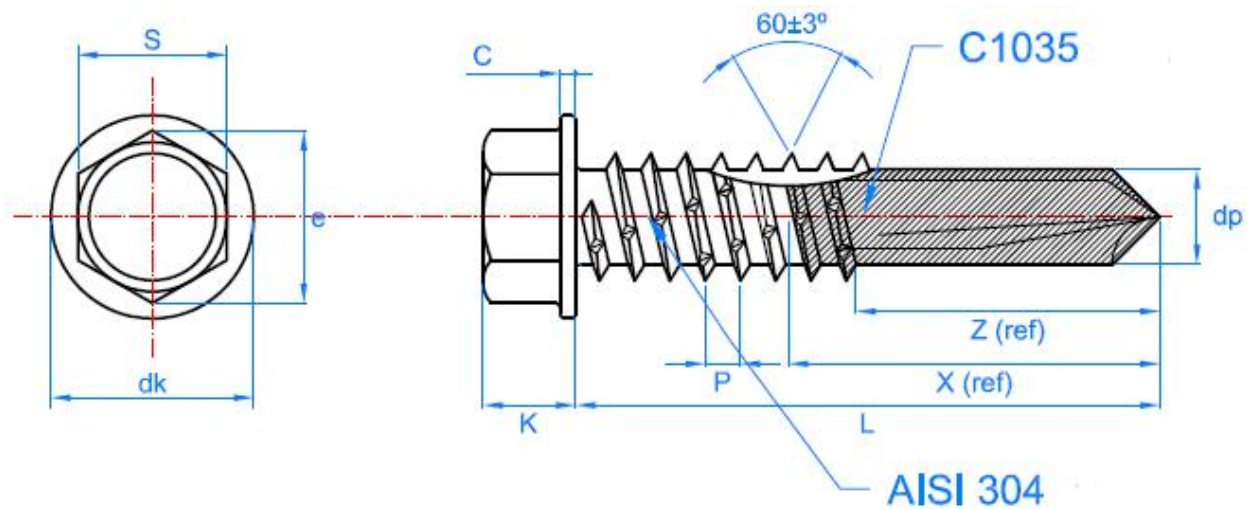
Versions with EPDM ø16 stainless steel washer assembled (code BIE16) for facades and roofing water tight fixing (see Technical Data Sheet ARVUL).



Reference	FT BIE
Date	30/10/12
Revision	2
Page	4 of 4
Code	BIE

Denomination: TWO-METALS STAINLESS STEEL SELFDRILLING SCREW

4.2- BAUTO SCREW



Code		ST 5.5
d_k : washer head diameter	[mm]	10.5
k : head thickness	[mm]	5.3
c : washer thickness	[mm]	1.0
s : nut key	[mm]	8
D : thread outer diameter	[mm]	5.46
d : thread inner diameter	[mm]	4.17
p : pitch	[mm]	1.8
d_p : tip diameter	[mm]	4.65
z : cutting edge length	[mm]	15.5
X : stainless steel tip length	[mm]	27
L : lengths	[mm]	40 - 100
l_G : maximum thickness to be fixed	[mm]	$L - 30$
Magnetic power dopbits codes		BOCA008
Drilling range	[mm]	1.75 - 12.00

Allow a minimum of 3 mm clearance from material to be fixed to hardened steel tip, thus avoiding any possible corrosion, due to contact of dissimilar metals.

Versions with EPDM $\varnothing 16$ stainless steel washer assembled (code BIE16) for facades and roofing water tight fixing (see Technical Data Sheet ARVUL).

