



SP

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SN Semcom Ltd Sti.
INONU MAH. OOSB NO:4
MURADIYE / MANISA
Turkey

Summary of Initial Type Testing Reports for **Industrial Doors**

SP Technical Research Institute of Sweden has as Notified Body no. 0402, performed Initial Type-Testing of the products mentioned below according to the requirements in the harmonized standard EN **13241-1:2003+AI:2011** Industrial, commercial and garage doors and gates -Product standard - Part 1: Products without fire resistance or smoke control characteristics. This report may be used as support for a Declaration of Performance in accordance with the Regulation (EU) No 305/2011 of the European parliament and of the council, CPR (Construction Products Regulation).

Product name and description

Industrial door name/type	SEMFORCE type NL, HL, VL, FTR, FLH-CE, FHL, LHR-CE
Weight of door, maximum	700 kg
Day-light, maximum	width 8500 mm; height 7000 mm
Day-light, tested	width 4000 mm; height 3500 mm width 4000 mm; height 3400 1R1T1 (for panels Italpannelli & Marcegaglia)
Panel manufacturer (type of panel)	Metecno Door Panel, Rytema, Italpannelli, Marcegaglia, Flexi-Force (Full vision)
Hardware Flexi—Force	2” tracks, code 2V - rollers 2” code 574-60, 575-100, 584-60, 585-60 - vertical angle code 9VB, 9K, 9ZR, 9VD - side seal code 1085, 1094-40, 1084, 1088 - top seal code 1036-36, 1036, 1036-52 3” tracks, code 13155 and 13236 - rollers 3” code 579-11 -198, 578-12- 198 - vertical angle code 9K - side seal code 1085, 1094-40 - top seal code 1036-36, 1036, 1036-52
Machinery/ Operator	See chapter 3 in this report
Balancing system	Torsion springs
Spring break device Flexi-Force	Type 670, 670S, 675 and 675-125 (see also chapter 1.5)
Cable break device Flexi-Force	2” 440-600, 440LHR, 440REGL, 444, 440HD, 440, 440S 3” 440-3 (see also chapter 1.5)
Safety edge	See chapter 3 in this report

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1. Test of fully assembled Door

1.1 Wind Load

Door panel type	Wind load Class	Maximum pressure [Pa]	Test report
Ryterna covered t=40 mm	4		1
Ryterna covered t=40 mm, with pass door SafeStep	1		1, 10
Metecno Door Panel Monowall nfs covered	3		1
Metecno Door Panel Monowall nfs covered, with pass door	1		1, 10
Metecno Door Panel Monowall nfs, with windows	2	-	1
Metecno Door Panel Monowall nfs, with windows and pass door	0	-	1, 10
Metecno Door Panel Monowall nfs, with windows, with cylinder lock & handle/footplate 1 or handle/footplate 2	3		
Italpanelli, Italdoor STD, 40 mm, nfs, cov	2		4
Italpanelli, Italdoor STD, 40 mm, nfs, cov with pass door	0		4, 10
Marcegaglia, 40 mm, non-fingersafe	3	-	9, 1 S
Marcegaulia, 40 mm, non-fingersafe with pass door	1		9, 10
Marceua*glia, 40 mm, fin*qersafe	3		17
Marcega*qlia, 50 mm. non-fingersafe	4		19
Flexi-Force Full vision, non-fingersafe	3		1
Flexi-Force Full vision, non-fingersafe, with pass door	1		1, 10
Flexi-Force — Metecno, Full vision, fingersafe	4		1
Flexi-Force — Metecno, Full vision, fingersafe, with pass door SafeStep	1		1, 10

Test reports SP No: 1) P403429, 2005-08-26 4) P805340B, 2008-12-15 9) P90800cC, TO 10-03-2s
 10) P900807-03B, 2010-06-02 17) 3P05443B, 2013-09-02 18) 3P05443C, 2013-09-02 19) 3 P05443 A, 2013-09-02
 Fmfull vision; fsfimp*ersafe; nfs=non-fingersafe; comovered

1.2 Determination of air permeability

1.2.1 Door test

Door panel type	Air permeability Class	Test report
Ryterna covered t=40 mm	3	1
Ryterna covered t=40 mm, with pass door SafeStep	1	1, 10
Metecno Door Panel Monowall nfs covered	4	1
Metecno Door Panel Monowall nfs covered, with pass door	2	1
Metecno Door Panel Monowall nfs, with windows	3	1
Metecno Door Panel Monowall nfs, with windows and pass door	1	1, 10
Metecno Door Panel Monowall nfs with windows, with cylinder lock & handle/footplate 1 or handle/footplate 2	3	1
Italpanelli, Italdoor STD, 40 mm, nfs, cov	2	4
Italpanelli, Italdoor STD, 40 mm, nfs, cov with pass door	0	4, 10
Marcegaglia, 40 mm, non finger safe	3	9
Marcegaelia, 40 mm, non finger safe with pass door	1	9, 10
Marcegaulia, 40 mm, fin*qersafe	3	17
Nlarcegaglia, 80 mm, non-fingersafe	2	19
Flexi-Force Full vision, non fingersafe	3	1
Flexi-Force Full vision, non fingersafe, with pass door	1	1, 10
Flexi-Force — Metecno, Full vision, fs	4	1
Flexi-Force — Metecno, Full vision, fs, with pass door SafeStep	1	1, 10

Test reports SP No: 1) P403429, 2005-08-26 4) P805340B, 2008-12-15 9) P908002C, 2010-03-22
 10) P900807-03 B, 2010-06-02 17) 3P05443 B, 2013-07-02 18) 3P05443C, 2013-09-02 19) 3 P054J3 A, 2013-09-02
 Fwllill vision; fs=finp*eisafie; nfs—non-fingersafe; comovered

1.2.2 Window test

FF window types tested separately. One window was tested except for window type 2230 and 2250, for which the worst case is shown in the table.

Window type, No	Note	Air leakage, m ³ /h	Window type, No	Note	Air leakage, m ³ /h
2210	1)	<0.01	2430	1)	0.02
2225	1)	<0.01	2250	1)	0.04
2230	1)	0.77	2450N	2)	0.01
2235	1)	<0.01	2460N	2)	0.11

Test reports SP: 1) P805340K, 2005-12- 15 2) P908002A, 2010-02- 19

1.3 Resistance to water penetration

1.3.1 Door test

Door panel type	Water penetration class	Maximq jji pressure Pa	Test r°P°ot
Ryterna covered t-40 mm	3	90	1
Ryterna covered t-40 mm, with pass door SafeStep	0	-	1, 10
Metecno Door Panel Monowall nfs covered	3	70	1
Metecno Door Panel Monowall nfs covered, with pass door	0	-	1
Metecno Door Panel Monowall nfs with all windows FF No. 2400-90	0		1
Metecno Door Panel Monowall nfs with all windows FF No. 2400-90 with pass door	0		1, 10
Metecno Door Panel Monowall nfs with: window no. 2380, window no. 2390 or window no. 2400-90 window no. 2445 or window no. 2397 cylinder lock no. 637 handle/footplate no. 640T handle/footplate no. 642BL	0 0 0 0 3	70	
Metecno Door Panel Monowall nfs with: window no. 2400-90 window no. 2397 or cylinder lock no. 637 handle/footplate no. 640T	2 0 3	70	
Italpanelli, Italdoor STD, 40 mm, nfs, cov	3	70	4
Italpanelli, Italdoor STD, 40 mm, nfs, cov with pass door	0	-	4, 10
Marcegaglia, 40 mm, non finger safe	0	-	9
Marcegaglia, 40 mm, non finger safe with pass door	0	-	9, 10
Marcegaglia, 40 mm, fingersafe	3	70	18
Marcegaglia, 80 mm, non-fingersafe	3	150	20
Flexi-Force, Full vision, non fingersafe	3	-	1
Flexi-Force, Full vision, non fingersafe, with pass door	0	-	1, 10
Flexi-Force — Metecno, Fv, fs	3	90	1
Flexi-Force — Metecno, Fv, fs, with pass door SafeStep	0		1, 10

Test reports SP No:

1) P403429, 2005-08-26

4) P805340B, 2008-12-15

9) P90800:C, :0 10-03-:

10) P900807-03B, 2010-06-02

18) 3P05443B, 2013-09-02

1 s) s P0 J-t3C, TO 13-0s-0

20) 3P0S443 A. 201 3-09-0?

Fv=full vision; fs=fingersafe; nfs=non-fingersafe; comoveted

1.3.2 Window test

FF window types tested separately. One window was tested except for window type 2230 and 2250 where 2 windows were tested for which the lowest class is given in the table below.

Window type, No	Note	Water penetration class	Maximum pressure [Pa]
2210	1)	3	150
2225	1)	3	150
2230	1)	0	
2250	1)	0	
2235	1)	3	150
2430	1)	3	150
2450N	2)	3	110
2460N	2)	3	110

Test reports SP: 1) P805340K, 2008-12-15 2) P908002A, 2010-02-19

1.4 Thermal resistance

Door panel type	Note	Thermal transmittance [W/(m ² K)]						
		p	pw	pd	pds	pwd	g	gd
Metecno Door Panel, Monowall	1	0.8	0.9	0.9		1.0	-	-
Ryterna	1, 5	1.2	1.3	1.3	1.3	1.4		
Italpannelli, Italdoor STD, 40 mm, nfs, 4000x3400 mm	2, 5	1.2	-	1.3	-	-		
Italpannelli, Italdoor STD, 40 mm, nfs, 8500x7000 mm	2, 5	0.9		1.0		-		-
Marcegaglia, 40 mm, nfs	4, 5	1.2		1.3		-	-	-
Flexi-Force, Full vision, nfs	1	-		-		-	5.6	s.6
Flexi-Force — Metecno, Full vision, fs	1, 5	-	-	-		-	5.6	>.6

p = door with covered panels only
 pw = covered panels with windows
 pd = covered panels with a pass door
 1) Test report SP No. P403429, 2005-08-26
 2) P805340L, rev2 2013-06-06
 4) P908002 U, 2010-04-06

pwd = covered panels with windows and a pass door
 g = fully glazed door (trill vision), gd = glazed door with a pass door
 pds = covered and with pass door SafeStep
 NPD No Performance Determined
 Fv — Full vision; fs=fingersafe; nfs=noh-fingersafe; cov=covered
 5) P900807-03B, 2010-06-02

1.5 Safe opening

Component (Flexi-Force types)	Door weight	Test report SP No, date
Spring break devices		
type 670, 675 and 675-125	225 kg/ SBD	P403429, 2005-08-26
type 670S	105 kg	P900807-03B, 2010-06-02
Cable break devices		
2" type: 444	400 kg	P602685B, 2006-06-21
2" type: 440—600, 440LHR, 440REGL	750 kg	P403429, 2005—08-26
2" type: 440, 4405	750 kg	P900807-03B, 2010-06-02
2" type: 440HD	960 kg	P403429, 2005-08-26
3" type: 440-3	750 kg	P403429, 2005-08-26

1.6 Dangerous substances

Requirement	Result	Test Report, dated
Dangerous substances	Pass	SP No. P403429, 2005-08-26 SP No. P900807-02B, 2009-06-26 SP No. P9058 11-03B, 2009—09-23

1.7 Durability of water tightness, thermal resistance and air permeability

Requirement	Result	Test Report, dated
Durability of water tightness, thermal resistance and air permeability	Pass	TNO 2005-BCS-R0014, Jan 11, 2005 (TNO Built Environment and Geosciences, The Netherlands)

2. Single panel test, resistance to wind load

2.1 Flexi-Force

Door panel type Flexi-Force full vision (SP No. P403429, 2005-08-26)	Width [mm]	Height [mm]	Wind load Class	[Pa]	Maximum pressure [Pa]
40 mm					
Full vision, 4 large windows	4000	610	4		1107
Full vision, 4 large windows	4500	610	3		1022
Full vision, 6 large windows	6000	610	2		765
Full vision, 8 large windows, reinforcement profile	8500	610	0		390

2.2 Metecno Door Panel

Door panel type Metecno Door Panel J0 mm	Width [mm]	Height [mm]	Wind load Class	[Pa]	Maximum pressure [Pa]
Mono>va 11 (SP No. P403429, 2005-08-26)					
non-fingersafe	4000	610	5	1075	1477
non-fingersafe, 4 windows	4000	610	2		842
non-fingersafe	6000	610	2		630
non-fingersafe, 6 windows	6000	610	0		314
non-fingersafe, reinforcement profile 65S	7500	610	2		766
non-fingersafe, reinforcement profile 68SC	7500	610	2		710
non-fingersafe, reinforcement profile 110S	8500	610	3		976
non-fingersafe, 7 windows, reinforcement profile 655	7500	610	1		536
non-fingersafe, 7 windows, reinforcement profile 68SC	7500	610			480
non-fingersafe, 8 windows, reinforcement profile 110S	8525	610	2		793
Secuwall (SP No. P403429 J, 2005-10-11)					
fingersafe	4000	500	5	1100	1504
fingersafe, with 4 windows	4000	500	1		448
fingersafe	6000	500	2		709
fingersafe, with 6 windows	6000	500	0		191
fingersafe	7500	500	1		448
fingersafe, reinforcement profile 113 mm	7500	500	4		1399
fingersafe	8500	500	0		345
fingersafe, reinforcement profile 113 mm	8500	500	3		1116

* profile type 68SC, SP PX04884-03, rev 1 2010-11-01

2.3 Ryterna

Door panel type Ryterna 40 m m (SP No. P403429, 2005-08-26)	Width [mm]	Height [mm]	Wind load Class [Pa]		Maximum pressure [Pa]
40mm	4000	610	5	1461	2009
4windovs	4000	610	2		841
40mm	6000	610	2		757
6windows	6000	610	1		422
reinforcement profile 655	7500	610	2		882
reinforcement profile 68SC	7500	610	2		830
reinforcement profile 110S	8500	610	3		1234
7 windows, reinforcement profile 65S	7500	610	2		654
7 windows, reinforcement profile 68SC	7500	610	1		600
8 windows, reinforcement profile 110S	8525	610	3		1009

fs = fingersafe iv=width, reinf pre reinforcement profile * profile type 68SC, SP PX04S 54-03, rev 1 2010-11 -01

2.4 Italpannelli

Door panel type Italpannelli STD, non-fing-safe 40 mm (SP No. P805340-02B, 2009-03-25)	Width [mm]	Height [mm]	Wind load Class [Pa]		Maximum pressure [Pa]
covered	4000	610	5	1300	1797
covered	6000	610	2		606
655	7500	610	2		757
68SC	7500	610	2		700
110S	8500	610	4		1160

* profile type 68SC, SP PX04884-03, rev 1 2010- 11 -01

2.5 Marcegaglia

Door panel type Marcegaglia, 40 mm fs and non fs, 80 mm non-fingersafe	Width [mm]	Height [mm]	Wind load Class [Pa]		Maximum pressure [Pa]	Ref.
40 mm panels non fingersafe						
4000 mm covered	4000	610	3		1215	1
6000 mm, covered, Strut FF 65S (65 mm)	6000	610	2		823	1
6000 mm, covered, Strut FF 68SC (65 mm)	6000	610	2		780	1, 2
7500 mm, covered, Strut FF 65S (65 mm)	7500	610	1		608	1
7500 mm, covered, Strut FF 68SC (65 mm)	7500	610	1		560	1, 2
8500 mm, covered, Strut FF 110S (110 mm)	8500	610	2		815	1
40 mm panels fingersafe						
4000 mm covered	4004	610	4		1417	3
6000 mm covered	6004	610	2		628	3
7500 mm, covered, Strut FF 65S	7505	610	2		680	3
5500 mm, covered, Strut FF 110S	8505	610	3		1047	3
80 mm panels, non fingersafe						
4000 mm, covered	4000	610	5	2057	2828	3
4000 mm, covered	6008	610	3		1263	3
7500 mm, covered, Strut FF 65S	7507	610	3		1073	3
8500 mm, covered, Strut FF 110S	8506	610	3		1235	3

Repon nuaiber: 1) SP No. P908002-01, 2010-02-25
3) 3P036 11, 2013-09-06

2) profile type 68SC, SP PX04884-03, rev 1 2010-11-01

3. Operatinp• forces

The operators were tested together with the test doors using Flexi-Force vertical lift track systems, different control units and safety edges. The configurations are shown in the following tables. The operators performed in accordance with the requirements according to test reports:

3.1 — 3.3 SP No. P403429, dated 2005-08-26 and for

3.x NICE-Deutschland GmbH types SDL and SWL, SP No. P805340-0 1-I, dated 2009-01-20

3.x Force90AC /Dalmatic Dall, SP P805340-0 1-I, 2009-0 1-23

Force60AC, report SKG 1 1.1116 20 11- 1 1-30; Force140AC, report SKG 11.1117 dated 20 1 1-11-30

Force70XC/70XQ, report SKG- 13.00506, 2013-10-08

Force 100XC/100XQ, report SKG- 13.00805, 2013-10-08

3.1 Force operators

Door weight	Machinery	Control unit // Sensor	Safety edge	Speed [mm/s]
700 kg	Force140AC	Dalmatic STD V.7E // OSE-1113926	OSE signal LP in 1039-52 rubber	198
			OSE signal LP in 1039-55 rubber	164
700 kg	Force140AC	Dalmatic STD V.7E // (wireless)	OSE WL kit in 1039-52 rubber	164
			OSE WL kit in 1039-55 rubber	138
550 kg	Force90AC 24 rpm	STD V.7E // Witt Opto sensor	Flexi-Force 1039-55	183
			Flexi-Force 1039-52	231
			Albany 006-207	207
			Novoferm 1286630	-219
			Fraba 456000	207
550 kg	Force90AC 24 rpm	STD V.7E // Dalmatia Opto sensor TSS10/RSS10	Flexi-Force 1039-52	243
			Flexi-Force 1039-55	183
			Albany 006-207	207
			Fraba 456000	207
			Novoferm 1286630	195
			Novoferm 1286000	195
550 kg	Force90AC 24 rpm	STD V.7E // Vitector Fraba Opto sensor OSE-S 1100	Flexi-Force 1039-52	207
			Fraba 456000	195
			Novoferm 1286630	207
			Novoferm 1286000	195
400 k°	Force 100XQ, 23 rpm Force 100XC, 23 rpm	FF control unit FORCE IQ // FF OSE Optosensor	OSE signal LP in 1039-52 rubber	210
350 k•	Force 70XQ, 2 I rpm Force 70XC, 2 I rpm	FF control unit FORCE IQ // FF OSE Optosensor	OSE signal LP in 1039-52 rubber	202
			OSE signal LP in 1039-55 rubber	171
300 kp•	Force60AC	AERF, SIMPLY 1H4 // OSE-1113926	OSE signal LP in 1039-52 rubber	245
			OSE signal LP in 1039-55 rubber	212
	Force 100XQ, 23 rpm Force 100XC, 23 rpm	FF control unit FORCE IQ // FF OSE Optosensor	OSE signal LP in 1039-52 rubber	221
			OSE signal LP in 1039-55 rubber	187

Notes: Force90 AC tested under the name Dalmatic Dall.

Type Force70XC 100 KC is identical to the Force70XQ 100 XQ, but fitted with an internal brake.

3.2 NICE-Deutschland G ni bH operators

Doorriveiq•ht	Machinery Note 1) and 2)	Control unit // Sensor	Safety edge	Speed [mm/s]
700 kg	MTec SD- 1	MTec UST 1 // Witt optosensor	Flexiforce 1039-52	223
			Flexiforce 1039-55	219
			MTec OSA-PI	233
700 kg	MTec SD-2	MTec UST 1 // Witt optosensor	Flexiforce 1039-52	231
			Flexiforce 1039-55	223
			MTec OSA-PI	223
400 kg	Mtec SDL10024-EKU, 24 rpm	Mtec UST IKL // Flexiforce Opto sensor	Flexi-Force 1039-52	207
			Flexi-Force 1039-55	195
			Fraba Vitector OSE-P257500	171
			Mtec OS-A-PI	183
400 kg	Mtec SDL10024-EKU, 24 rpm	Mtec UST IKL // Mtec OS-SES-A	Mtec OS-A-PI	183
			Flexi-Force 1039-55	183
			Flexi-Force 1039-52	207
400 kg	Mtec SDL10024-EKU, 24 rpm	Mtec UST2L // Mtec OS—SES-A	Flexi-Force 1039-52	207
			Flexi-Force 1039-55	183
			Mtec OS-A-PI	207
			Mtec OS-A-PI	207
400 kg	Mtec SDL10024-EKU, 24 rpm	Mtec UST2L // Flexiforce Opto sensor	Fraba Vitector OSE-P257500	171
			Flexi-Force 1039-55	183
			Flexi-Force 1039-52	207
			Flexi-Force 1039-52	172
550 kg	Mtec SDL140 17-EKU, 17 rpm	Mtec UST2L // Flexiforce Opto sensor	Fraba Vitector OSE-P257500	138
			Mtec OS-A-PI	155
			Flexi-Force 1039-55	138
			Flexi-Force 1039-55	138
550 kg	Mtec SDL14017-EKU, 17 rpm	Mtec UST IKL // Flexiforce Opto sensor	Fraba Vitector OSE-P257500	147
			Flexi-Force 1039-52	172
			Mtec OS-A-PI	155
			Mtec OS-A-PI	203
350 kg	Mtec SWL07020, 20 rpm	Mtec USTIKL // Flexiforce Opto sensor	Flexi-Force 1039-52	223
			Fraba Vitector OSE-P257500	193
			Flexi-Force 1039-55	173
			Flexi-Force 1039-55	173
350 kg	Mtec SWL07020, 20 rpm	Mtec UST 1 KL // Mtec OS-SES-A	Mtec OS-A-PI	203
			Flexi-Force 1039-52	223
			Fraba Vitector OSE-P257500	229
			Fraba Vitector OSE-P257500	173
350 kp	Mtec SWL07020, 20 rpm	Mtec UST2L // Mtec OS-SES-A	Flexi-Force 1039-52	223
			Mtec OS-A-PI	203
			Flexi-Force 1039-55	173
			Flexi-Force 1039-55	173
350 kg	Mtec SWL07020, 20 rpm	Mtec UST2L // Flexiforce Opto sensor	Mtec OS-A-PI	223
			Flexi-Force 1039-52	223
			Fraba Vitector OSE-P257500	173
			Fraba Vitector OSE-P257500	153
550 kg	Mtec SDL 14617, 17 rpm	Mtec UST IKL // Rltec OS-SES-A	Flexi-Force 1039-52	172
			Mtec OS-A-PI	147
			Flexi-Force 1039-55	130
			Flexi-Force 1039-55	138
550 kg	Mtec SDL14617, 17 rpm	Mtec UST2L // Mtec OS-SES-A	Flexi-Force 1039-52	172
			Fraba Vitector OSE-P257500	147
			Mtec OS—A-PI	147
			Mtec OS-A-PI	195
350 kg	Mtec SDL10024 24 rpm -- 50 Hz	Mtec USTIFU // Mtec OS-SES-A	Mtec OS-A-PI	195
		Mtec USTIFU // FF Opto sensor	Mtec OS-A-PI	207
350 kg	Mtec SDL10024 19.2 rpm -- 40 Hz	Mtec USTIFU // FF Opto sensor	Mtec OS-A-PI	195
		Mtec USTIFU // Mtec OS-SES-A	Mtec OS-A-PI	175

1) According to the manufacturer MTec; MTec SD-1 is sold also under the brand name Nice TMS10024

2) According to the manufacturer MTec; MTec SD-2 is sold also under the brand name Nice TMS14017

3.3 Chamberla in operators

Door weight	Machinery	Control unit // Sensor	Safety edge	Speed mm/s]
700 kg	Chamberlain DK90/22	Fei•q TST 2 // -	Gelbau 002.10	320
		Feig TST 2 // Fraba OSE	Flexiforce 1039-95 Fraba P259000	322 289
550 kg	Chamberlain DK70/30	Feig TST 2 // Fraba OSE	Flexiforce 1039-52	237
			Fraba P2575010605 Fraba P456000	289 237
		Feig TST 2 // -	Gelbau 002.10	334
550 kg	Chamberlain DK90/22	Feig TST 2 // Fraba OSE	Flexiforce 1039-52	185
			Flexiforce 1039-55	185
			Fraba P2575010605 Fraba P456000	234 200
		Feig TST 2 // -	Gelbau 31000804	205
200 kg	Chamberlain 3800A	Internal // Internal	Flexiforce Standard	195
			Flexiforce 1039-95	176

SP Technical Research Institute of Sweden
Certification



Jennart Aronsson
Product Certification Manager



Susanne Hansson
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