

## FACTA v EN 124

### What are the differences between FACTA and EN 124?

Fabricated Access Covers Trade Association (FACTA) is a specification that allows fabricated access covers to be made from a variety of materials and offer flexibility in its design, something that isn't achievable for cast covers. EN 124 was initially introduced to bring clarity to loading expectations of access covers that were manufactured and supplied to the market. But instead brought about concerns and questions on how the standard determined such important details and caused confusion between manufacturers and suppliers alike. The test loads for both specifications are different, FACTA takes into consideration the elastic nature of steel, whilst EN 124 includes allowances for dynamic effects caused by fast moving vehicles (FACTA specifies this isn't required as steel covers are only used in slow moving areas).

### What are the similarities between FACTA and EN 124?

FACTA have produced a classification table that outlines what each of its loading classes can withstand (in terms of both gross laden and slow moving) as well as show the equivalent loading of the EN124 specification as comparison. For example; FACTA B is seen as a direct equivalent to B125. The typical application for each loading on both specifications is also detailed, please see the table below:

FACTA Class	Comparison** EN124 Class	Wheel Loads		Load Test Data	
		Wheel Loads * (slow moving) Pneumatic	Wheel Loads * (slow moving) Solid	Test 1 (Service) (Static Wheel Load plus overload & dynamic effects)	Test 2 (Ultimate) (Test 1 load plus ultimate safety factor)
A	A15	0.6 tonne (5kN)	N/A	5.0 x 1.0 x 1.0 = 5.0kN	5.0 x 1.6 = 8.0kN
AA	N/A	1.5 tonne (15kN)	N/A	15.0 x 1.1 x 1.15 = 19.0kN	19.0 x 1.6 = 31.0kN
AAA	N/A	2.5 tonne (25kN)	0.5 tonne	25.0 x 1.1 x 1.15 = 32.0kN	32.0 x 1.6 = 52.0kN
B	B125	5.0 tonne (50kN)	0.75 tonne	50.0 x 1.1 x 1.15 = 63.25kN	63.25 x 1.6 = 101.0kN
C	C250	6.5 tonne (65kN)	1.0 tonne	65.0 x 1.1 x 1.15 = 82.5kN	82.5 x 1.6 = 132.0kN
D	D400	11.0 tonne (108kN)	3.0 tonne	108.0 x 1.1 x 1.15 = 137.5kN	137.5 x 1.6 = 220.0kN
E	E600	16.0 tonne (158kN)	5.0 tonne	158.0 x 1.1 x 1.15 = 200.0kN	200.0 x 1.6 = 320.0kN
F	F900	24.0 tonne (237kN)	N/A	237.0 x 1.1 x 1.15 = 300.0kN	300.0 x 1.6 = 480.0kN

NOTE: Under the "Road Vehicles (Authorised Weight) Regulations 1998", axle weights for the UK are limited to 11.5 tonnes maximum. Refer to 'Service Test for maximum design load/load bearing capacity'.

\* Slow moving wheel loads are deemed to be speeds no greater than 20mph, in low intensity trafficked areas. Where higher intensity traffic is expected, a higher load classification of cover is recommended.

\*\* These comparisons are indicative of the typical suitable area of application of each product class and are not a like-for-like performance comparison. Comparisons are for guidance only and not intended to be exact.



## How do I know when to specify FACTA or EN 124?

Historically, access covers were designated in three wheel load categories;

5kN (0.5Tonne)

50kN (5.0 Tonne)

115kN (11.5 Tonne)

The first two of these align with the guidance on the application of BS EN 124 contained in the FACTA publication 'Specification for Fabricated Access Covers' as follows;

A15 Slow Moving Pneumatic Wheel Load of 5kN

B125 Slow Moving Pneumatic Wheel Load of 50kN

The FACTA specification indicates a 6.5 Tonne rating for a C250 cover and 11.0 Tonne for a D400 cover, the latter being the closest to the upper 'historic' requirement. However, the load factors applied to these covers include allowances for the dynamic effects caused by fast moving vehicles, a condition that has been specified as not usually relevant on sites, due to speed restrictions. A typical application for a D400, for example, is indicated as "Heavy duty plant areas, carriageways and industrial service roads where fast moving HGVs reach speeds of 20mph max." Moreover, the maximum wheel load currently allowed on a British road is 6.5 Tonne. Abnormal loads may only impose a higher load by special arrangement and even then, the abnormal load tends to be distributed over a large number of axles to keep the wheel load within acceptable limits. Consequently, it is considered more practical and economic to specify a C250 cover as the standard maximum requirement in access roads.

