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High Performance Architectural Hinges



LOAD PRO

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Cut your Carbon Footprint

Nico Manufacturing produces LoadPro Architectural Hinges at its UK facility.

By buying British rather than from far afield, the environmental impact is much lower. In fact a comparative hinge produced in the Far East generates 70% more greenhouse emissions – enough to drive a car over 5 miles.



the fitting architectural contract hinges

Nico has been producing hinges and associated products for the building, furniture and window industries since 1932, and is today a major manufacturer of Architectural Door Hinges. We also offer a comprehensive range of window fittings – from Friction hinges through to Espagnolette, Shootbolt and Multipoint locking systems – many of which are accredited by Secured by Design and BBA (British Board of Agreement).

An ISO 9001 accredited company, we endeavour to keep all aspects of manufacture in-house allowing control at all stages of production and ensuring that finished goods are supplied on time and to the highest specification.

Guide to Specifiers

This guide is intended to provide the architect and specifier with detailed information about the Nico range of Architectural Door Hinges, all tested and accredited to surpass the current stringent European regulations regarding fire and escape route doors.

Nico Architectural Door Hinges range from traditional mild steel, plain bearing five knuckle hinges and double ball bearing stainless steel butt hinges through to the Nico LOADPRO high performance, maintenance free lift-off and three knuckle butt hinges, designed to give years of trouble free performance in the most demanding situations.

Choice of Finishes

LOADPRO Hinges are available in the following finishes: Zinc Plated; Electro Brass Plated; Zinc Yellow Passivated; Satin Nickel Plated; Polished Brass; Chrome; Supercoat Corrosion-resistant Coating; Painted; Satin and Polished Stainless.



All Nico LOADPRO architectural hinges are supplied in convenient 10 hinge packs with fitting instructions.

choice



Testing

All our Architectural hinges have been endurance and corrosion tested in our own laboratories before being 3rd party tested and accredited by Exova Warrington APT Laboratories and Warrington Fire Research Laboratories.

EN1935:2002 Testing, mechanical and endurance performance requirements for single axis Hinges.

EN1634-1:2000 Fire testing for doors and doorset assemblies, including hardware.

CE-Marked.

Test reports and certification data are available for download from www.loadpro.co.uk.

architectural door hinges

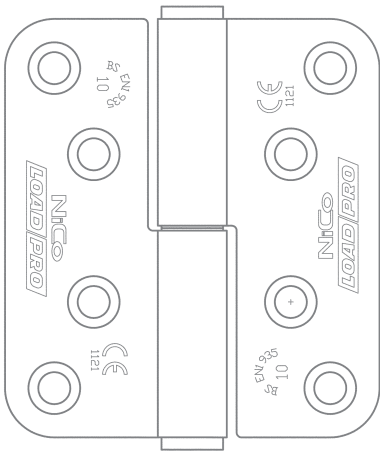
Manufactured in the UK from heavy gauge steel and stainless steel in a choice of finishes, LOADPRO architectural door hinges are designed for long-life performance under the most arduous conditions – suitable for one hour fire-rated installation.

Whether fitted to the heaviest fire doors, or for applications in high traffic areas, such as schools and hospitals, LOADPRO will perform consistently and efficiently – guaranteed for up to 25 years.

The hinges are available in a choice of finishes, including Nico Supercoat 500 for enhanced corrosion resistance.



4710 Lift Off



LoadPro 4710 Hinge in Yellow Passivate finish.



4710 – 85x76mm Symmetrical Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel

EN 1935:2002 Grade 10

CE Certificate Nos. 1121-CPD-AC0075/AC0076

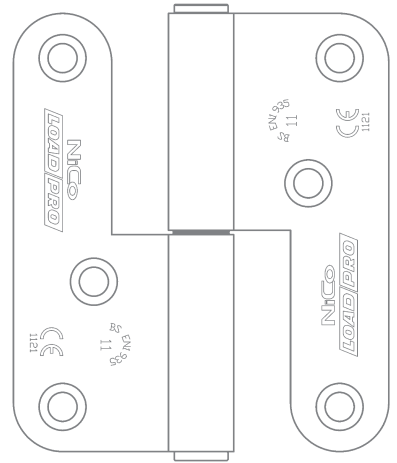
Fire tested in accordance with EN 1634-1:2000 & CE Marked

Supplied with No. 10 1¹/₄" screws

Maximum adjusted door weight: 60kg

Recommended minimum door thickness: 35mm

4715 Lift Off



LoadPro 4715 Hinge in Satin Nickel finish.

4715 – 98x84mm Offset Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel

EN 1935:2002 Grade 11

CE Certificate Nos. 1121-CPD-AC0077 to AC0079

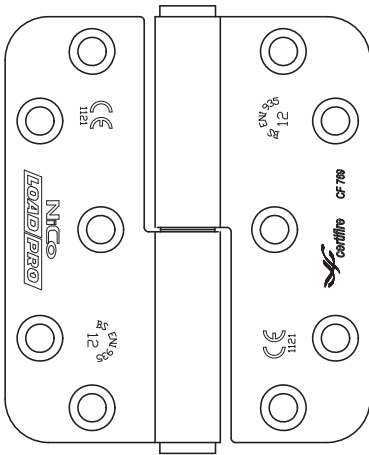
Fire tested in accordance with EN 1634-1:2000 & CE Marked

Supplied with No. 10 1¼" screws

Maximum adjusted door weight: 80kg

Recommended minimum door thickness: 35mm

4717 Lift Off



LoadPro 4717 Hinge in Satin Stainless Steel finish.

4717 – 98x84mm Symmetrical Leaf Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel

EN 1935:2002 Grade 12

CE Certificate Nos. 1121-CPD-AC0080 to AC0082

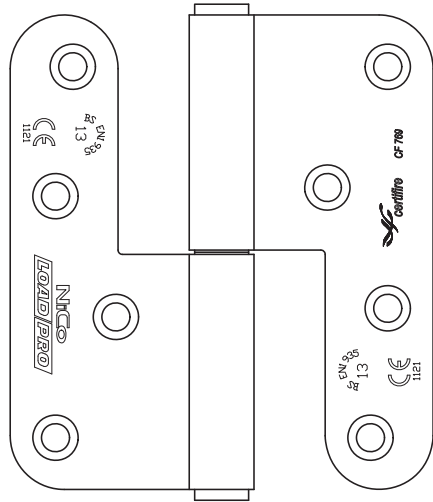
Fire tested in accordance with EN 1634-1:2000 & CE Marked

Supplied with No. 10 1¼" screws

Maximum adjusted door weight: 100kg

Recommended minimum door thickness: 44mm

4720 Lift Off



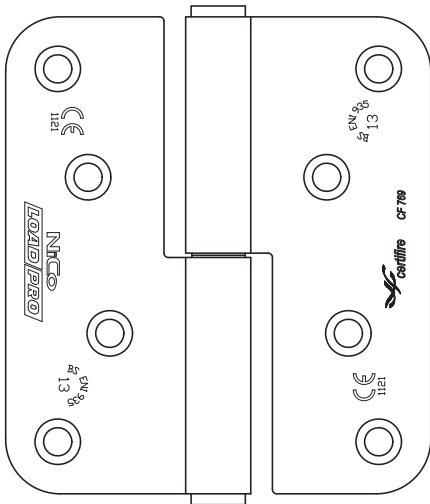
LoadPro 4720 Hinge in Satin Stainless Steel finish.

4720 – 110x98mm Offset Lift Off Hinge (handed)

Grade 304 stainless steel or CS4 mild steel
 EN 1935:2002 Grade 13
 CE Certificate Nos. 1121-CPD-AC0084/AC0086/AC0090
 Fire tested in accordance with EN 1634-1:2000 & CE Marked
 Supplied with No. 10 1¹/₄" screws
 Maximum adjusted door weight: 120kg
 Recommended minimum door thickness: 44mm



4722 Lift Off



LoadPro 4722 Hinge in Yellow Passivate finish.



4722 – 110x98mm Symmetrical Leaf Lift Off Hinge (handed)

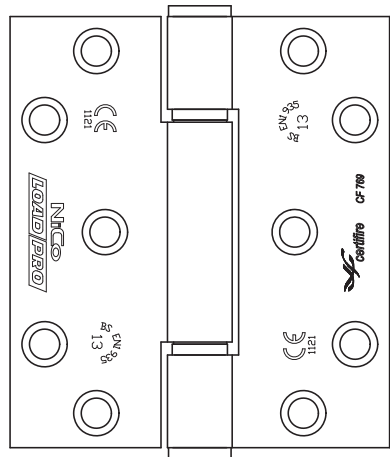
Grade 304 stainless steel or CS4 mild steel
 EN 1935:2002 Grade 13
 CE Certificate Nos. 1121-CPD-AC0084/AC0086/AC0090
 Fire tested in accordance with EN 1634-1:2000 & CE Marked
 Supplied with No.10 1¹/₄" screws
 Maximum adjusted door weight: 120kg
 Recommended minimum door thickness: 44mm



4815 Butt



LoadPro 4815 Hinge in Polished Stainless Steel finish.



4815 – 100x88mm Triple Knuckle Butt Hinge (square or radius)

Mild Steel

Grade CS4
 EN 1935:2002 Grade 12
 CE Cert Nos. 1121-CPD-AC0090
 Maximum adjusted door weight: 100kg
 Rec minimum door thickness: 44mm
 Fire tested in accordance with EN 1634-1:2000 & CE Marked
 Supplied with No.10 1 1/4" screws

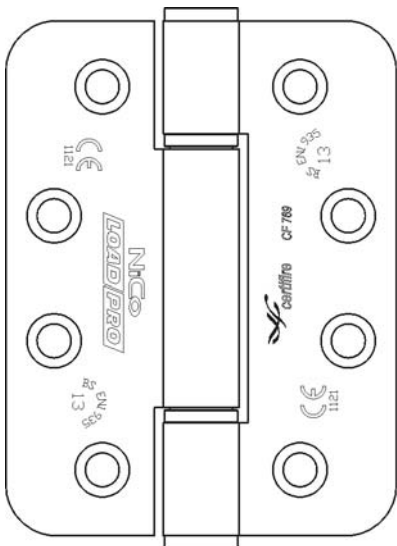
Stainless

Grade 304
 Grade 13
 1121-CPD-AC0090
 120kg
 44mm



4817 Butt

LoadPro 4817 Hinge in Mild Steel finish.



4817 – 101x76mm Triple Knuckle Butt Hinge (square or radius)

Mild Steel

Grade CS4
 EN 1935:2002 Grade 12
 CE Cert Nos. 1121-CPD-AC0090
 Maximum adjusted door weight: 100kg
 Rec minimum door thickness: 44mm
 Fire tested in accordance with EN 1634-1:2000 & CE Marked
 Supplied with No.10 1 1/4" screws

Stainless

Grade 304
 Grade 13
 1121-CPD-AC0090
 120kg
 44mm



3D adjustable door hinge

The Nico LOADPRO 3D Adjustable Hinge is the ideal solution for high performance applications. Featuring low-friction bearings for smooth door opening, it offers guaranteed reliable, maintenance-free operation.

Available in a selection of finishes including polished chrome and brass to complement top of the range hardware, the Nico 3D Hinge is fully adjustable in three directions for precise positioning and fixing. For ease and speed of installation, the patented design allows the hinge to remain fixed to the door during the adjustment process.

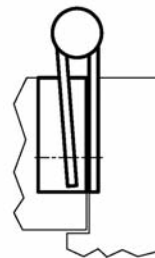


RIGHT: LoadPro 4915 3D Adjustable Door Hinge in Yellow Passivate finish and Supercoat 500.

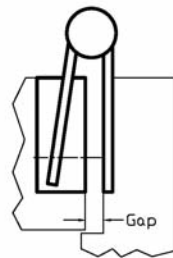
BELOW: Adjustable Hinge in polished chrome finish.



Hinge Side Adjustment



Minimum Gap 0mm



Maximum Gap 4mm

4915 – 92x92x14mm/2.7mm 3D Adjustable Hinge

Grade CS4 mild steel/zinc alloy.

Tested to comply with BS EN1935:2002 Grade 11

Adjustable in 3 axes with door in situ

Maximum adjusted door weight: 80kg

Choice of high corrosion resistant finishes

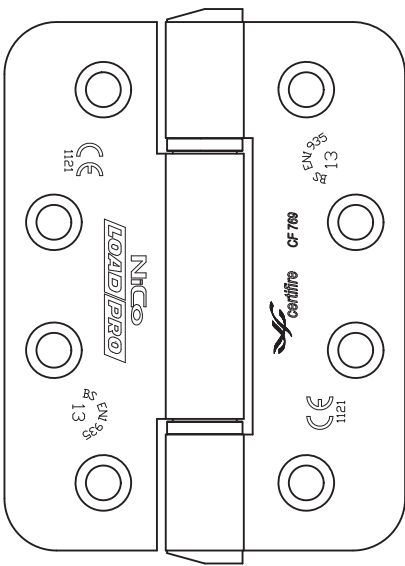
new

anti ligature hinges



LOADPRO anti ligature hinges are designed to minimise the risk of self harm within secure and mental health environments. The hinges, which feature sloping knuckle shoulders and special screws, are fully recessed to prevent the fixing of ligatures and are independently tested to DHF TS001.

4817/4815 AN Butts



LoadPro 4815 AN Hinge in Mild Steel finish.

4815 AN – 100x88mm Butt Hinge (square or radius)

Mild Steel Grade CS4
EN 1935:2002 Grade 12
EN 1634-1:2000
CE Cert Nos. 1121-CPD-AC0090
Maximum adjusted door weight: 100kg
Rec minimum door thickness: 44mm
Supplied with No.10 1 1/4" screws

Stainless Grade 304
Grade 13
EN 1634-1:2000
1121-CPD-AC0090
120kg
44mm



4817 AN – 101x76mm Butt Hinge (square or radius)

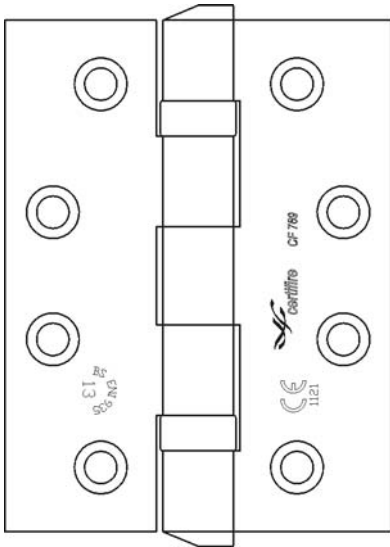
Mild Steel Grade CS4
EN 1935:2002 Grade 12
EN 1634-1:2000
CE Cert Nos. 1121-CPD-AC0090
Maximum adjusted door weight: 100kg
Rec minimum door thickness: 44mm
Supplied with No.10 1 1/4" screws

Stainless Grade 304
Grade 13
EN 1634-1:2000
1121-CPD-AC0090
120kg
44mm



5315 AN Butt

LoadPro 5315 AN Hinge in mild steel finish.



5315 AN – 101x76x3mm 2 Ball Bearing Butt Hinge (square or radius)

Austenitic Stainless Steel
EN 1935:2002 Grade 13
CE Cert No. 1121-CPD-AC0062
Supplied with No.10 1 1/4" screws

Maximum adjusted door weight: 120kg
Rec minimum door thickness: 44mm



contract butt CE hinges



The Nico Contract range of CE-Marked Hinges includes 100mm Strong Butts in Stainless Steel or Mild Steel. Like the Load Pro range, the contract butts are available in a variety of finishes, including Electro-Brass, Zinc Plating and Nico Supercoat 500.

4513 - Plain Bearing Butt Hinge (loose pin)

Size: 89x89x2.64mm
Grade GS13 carbon steel
EN 1935:2002 Grade 10
CE Certificate Nos. 1121-CPD-AC0100
EN 1634-1:2000 & CE Marked
Max adjusted door weight: 60kg
Recommended minimum door thickness: 44mm

4515 - Plain Bearing Butt Hinge 4515R - 10mm radius

Size: 101x73x2.64mm
Grade CS4 mild steel
EN 1935:2002 Grade 7
CE Certificate Nos. 1121-CPD-AC0058/AC0059
EN 1634-1:2000 & CE Marked
Max adjusted door weight: 40kg
Recommended minimum door thickness: 44mm

5315 - 2 Ball Bearing Butt Hinge 5315R - 10mm radius

Size: 101x76x3mm
Austenitic stainless steel
EN 1935:2002 Grade 13
CE Certificate Nos. 1121-CPD-AC0062
EN 1634-1:2000 & CE Marked
Supplied with No.10 1 1/4" screws
Max adj door weight: 120kg
Recommended minimum door thickness: 44mm



loadpro door hinges

Technical Data

Available in a choice of lift-off or fixed pin variants, the Load Pro range meets a broad range of high performance requirements.

Where on-site removal of the door is necessary, there are a choice of 5 hinge patterns each offering individual installation and performance characteristics. For more secure applications, the 4815 and 4817 fixed pin hinges with dual bearings are available – with radius corners for machine preparation or square corners for on-site installation.

Incorporating low-friction bearings to assist in the ease of door operation, Load Pro is the recommended choice for high efficiency specifications where conformity with the door opening resistance criteria of DDA (Disability Discrimination Act) is paramount

Nico's Contract range of steel and stainless steel hinges can also be used for fire resistance applications with adjusted door weights of 40, 60 or 120kg. While requiring periodic lubrication to maintain maximum efficiency, the Contract hinges offer a low cost solution to minimum fire door requirements, making them ideal for domestic, social housing and light commercial projects.

HINGE SELECTION

To assist in the correct hinge selection for a particular application, the tables and diagrams show recommended hinge positioning for optimum performance, as well as indicating the variables which should be applied to actual door dimensions when selecting hinges for extra high or wide doors, or when used in conjunction with standard or back-check door closers.

Determine weight of the door including hardware

Make adjustment for type of door closer (Table 1)

Make adjustment for width of door (Table 2)

Calculate adjusted weight; select hinge (Table 3)

Example. Door weighing 55kg fitted with standard closer & 1100mm wide = 55kg + 20% for closer + 18% for width = 55kg + 38% = 76kg. Adjusted weight = 76kg; select Hinge Grade 11 or above.

TABLE 1

Closer	Adjustment
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Standard Closer Fitted	+20%
Back-Check Closer Fitted	+75%

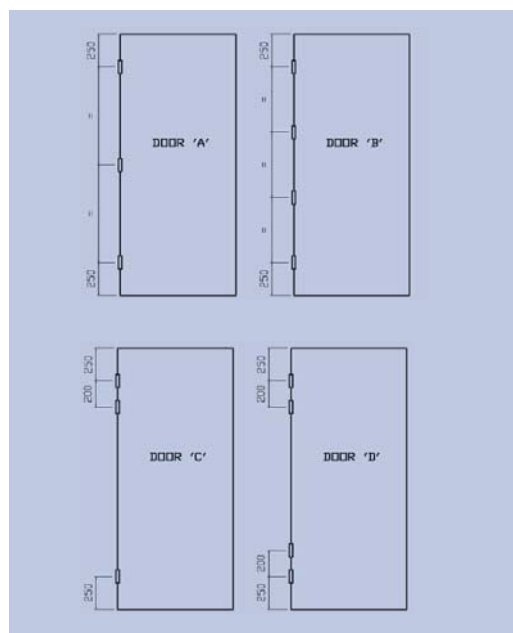
TABLE 2

Door Height	Door Width	Adjustment
2000mm	up to 1000mm	None
2000mm	up to 1050mm	+10%
2000mm	up to 1100mm	+18%
2000mm	up to 1150mm	+26%
2000mm	up to 1200mm	+33%
2000mm	up to 1250mm	+40%

TABLE 3

Hinge	Grade	Max Adjusted Door Weight for 3 Hinges
4515	7	40kg
4513	10	60kg
4710	10	60kg
4715	11	80kg
4717	12	100kg
4720	13	120kg
4722	13	120kg
4815 Mild Steel	12	100kg
4815 Stainless	13	120kg
4817 Mild Steel	13	100kg
4817 Stainless	13	120kg
4915	11	80kg
5315	13	120kg

Hinge Location



Doors 'A' & 'B' show hinge locations for maximum resistance to warping.

Doors 'C' & 'D' show hinge locations for maximum load bearing.

Door 'C' positioning is recommended when fitting a standard doorcloser.

Door 'D' positioning is recommended when fitting a back-check doorcloser.

Tall Doors

Doors taller than 2100mm should be fitted with four hinges as per Door 'B'.

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