

Total Solution

Hardware
Bathroom
Handrail
Signs





The formula

In 1971, the first **d line** lever handle, the 14 mm U-shape lever, saw the light of day.

It was the result of Danish architect and designer, Knud Holscher's meticulous sketching of a new design formula: a sharp bend section on all metal tubes while maintaining the radius of the cross section.

The U-shape was followed by the L-shape, which firmly established the **d line** ethos of strong, minimalistic design. The overriding characteristic of these first two levers has been maintained on **d line** products ever since – the formula remains unique to this day.

Over the years, new designs emerged. Slowly but consistently, and through the same visual expression, the product range formed a complete scheme of stainless steel designs, comprising four product groups: **hardware**, **bathroom**, **handrail** and **signs**.

For **d line** and Knud Holscher, the **d line** product series was an architectural philosophy materializing: 3,000 ironmongery items united by a single design concept.

We call it the **d line Total Solution**.



d line today is no different from d line in 1971. All designs originate in Knud Holscher's studio.

And to this day – four decades after the first lever handle, his uncompromising and consistent approach to design for house interiors remains unique:

"I wanted to create a sense of coherence in which the bathroom wasn't subordinate to the other rooms in the house, through subtle, homogeneous design that tie a building's rooms together." Knud Holscher



Guarantee

d line

GUARANTEE
20 YEARS

d line
KNUD HOLSTEN DESIGN

Performance Guarantee

According to **d line**, a brand name product keeps its promise of quality to the end user!

As a way of ensuring this, **d line** grants a **20 year Performance Guarantee** on all **d line** hardware and bathroom products as long as the respective assembly, installation, operational and maintenance guidelines are fulfilled.

Please see our homepage for further information
www.dline.com

d line brand products undergo numerous tests to ensure they fulfill the high **d line** standard of quality, functionality and durability. The **d line** door levers are tested beyond the requirements of DIN EN 1906 to secure our customers a product of excellence.

With the **20 year Performance Guarantee**, **d line** extends way beyond the statutory 2 years of European regulations, and hereby setting a new quality standard for brand name hardware and bathroom accessories.

Guarantee

Hardware

Hardware
Bathroom
Handrail
Signs



Architect
Henning Larsen

Project
The Royal Danish Opera House
Copenhagen

The bend

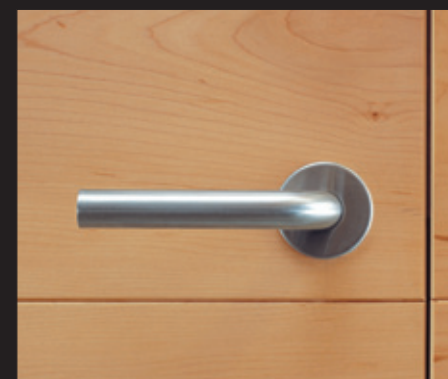
Hardware was the beginning. It was the period where the ground pillars were erected and the **d line** DNA was defined through the U and the L-shape levers and by virtue of the bend – the epitome of **d line**.

The bend and the diameter evolved. Every design sprung from its predecessor as inspiration and refinement in manufacturing technique advanced, whilst being developed in relation to the overall design concept and based on the original formula.

The bend transformed and became more complex, larger circular and cranked pull handles were introduced, and the standard knob took on new, contemporary shapes to challenge traditions.

The **d line** hardware series today, comprises a selection of strong, individual designs. Elements that, when in play, form a symphony.

Diversity in products - unity in design.

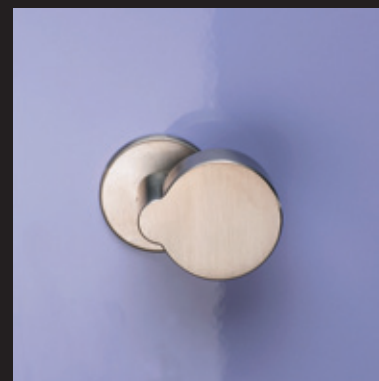


Hardware



Architect
Lundgaard & Tranberg Architects

Project
The Royal Danish Playhouse
Copenhagen



Hardware



Project
Boutique GUBI
Copenhagen



Hardware

Hardware



Architect
Tegnestuen Vandkunsten

Project
Rockwool International A/S
Hedehusene, Denmark



Reference

d line
KNUD HOLSTEN DESIGN

Architect
Foster+Partners

Project
Swiss Re
London

Reference

Bathroom

Hardware
Bathroom
Handrail
Signs



The iconography

A cup dispenser with round holes, resembling the shape and bend of the lever handles, and revealing the content of the dispenser, formed the launch of the **d line** bathroom group.

The bend was continued into the bathroom fittings, and a decade later modular thinking was the new mantra and the bedrock for the sanitary

panel system – panels with rounded edges matching the outer bend of the fittings.

The design goes full circle and the curved iconography expands.

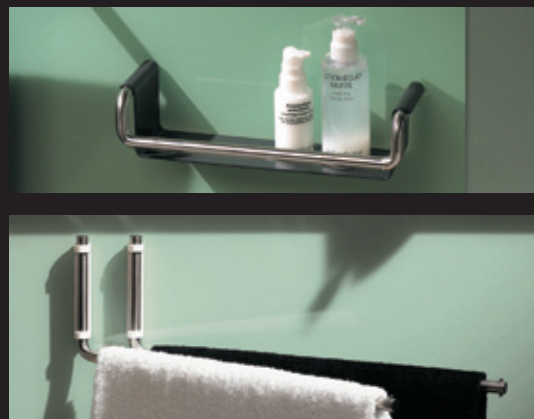


Bathroom

Architect
Lundgaard & Tranberg Architects

Project
The Royal Danish Playhouse
Copenhagen

d line
KNUD HOLSCHER DESIGN



"Very simple ironmongery is to architecture what buttons are to a shirt; both should support the design and not distract from the overall expression". Knud Holscher

Whereas the hardware series is a collection of individual, but complimentary items, the bathroom series consist of fittings, panels and dispensers that form a whole.

The immediate deciphering of a product's usage was a design condition and focal point for the bathroom range. It was a meticulous process of selection and rejection.

How could the bathroom elements be formed with simple geometry and still unmistakably express their functional purpose – and only that.

Simplicity is the hardest thing to obtain.



Bathroom

d line
KNUD HOLSTEN DESIGN

Architect
schmidt hammer lassen architects

Project
Kromann Reumert Law Firm
Copenhagen



Bathroom

Reference

A19



A20



d line

KRISTIN HOLSTEN DESIGN

Architect
Richard Rogers

Project
London Heathrow terminal 5

Reference

Handrail

Hardware
Bathroom
Handrail
Signs



Architect
JHK Architecten

Project
Philips Breitnercenter
Amsterdam

The fixing point

By now, the recognisable steel finish was a given in all **d line** designs. And so it continued into the **d line** handrail system, featuring an innovative modular component system as the basis of the new product group.

Easy assemble, alter or repair in a complete design and construction concept.

The goal was to design a handrail system that could accommodate the challenging constructions and structural variations of staircase geometries, without compromising the aesthetics of the design.

The key was the fixing-point. Nylon rings that can be added or removed, enabling all degrees of bend angles.

This allows the balustrade as a whole to mould itself to the inherent architecture – however challenging it may be.

Intelligent fixing-points and silly meters.



Architect
Donaldson + Warn Architects
Project
LF Walkway, Kings Park,
Perth, Australia

Signs

Hardware
Bathroom
Handrail
Signs



Architect
Lundgaard & Tranberg Architects

Project
Det Kgl. Vajsenhus
Copenhagen

The green acrylic

Once again the modularity comes into play.

The **d line** signage systems are developed with flexibility in mind – flexibility to accommodate the ever-changing environments in which they serve as direction and information posts.

The sign range is a result of a play with surfaces. The steel was brushed or glass bead blasted – a new method leaving the surface with a matt appearance contrasting the brushed shiny steel.

In addition, acrylic material was introduced after undergoing a meticulous process of color selection.

The result was a bright green acrylic – a fresh addition that complimented the steel – a color and material combination that became so popular that it was also integrated in the bathroom series.

Today, the green acrylic color is synonymous with the **d line** universe.



Reference

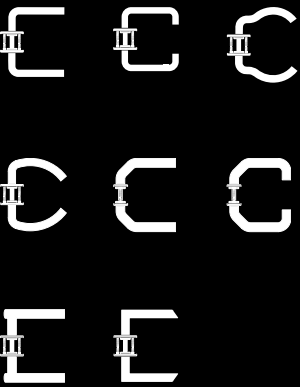
d line
KNUD HOLSTEN DESIGN

Architect
He Jingtang

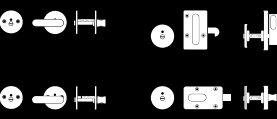
Project
China Pavilion at Shanghai
World Expo 2010

Reference

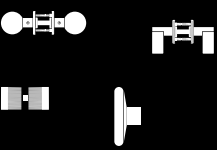
Lever handles



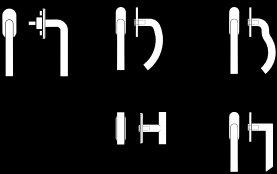
Indicators



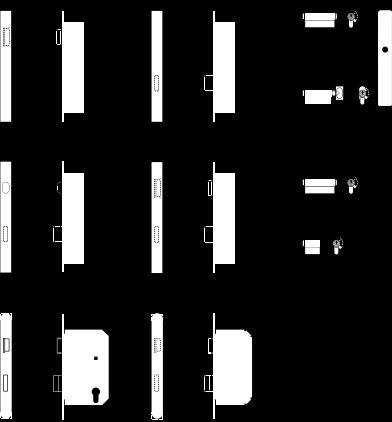
Knob handles



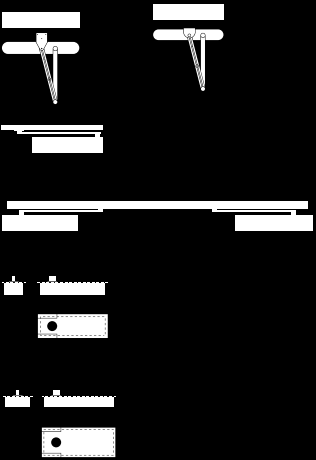
Window levers



Locks cylinders



Door closers



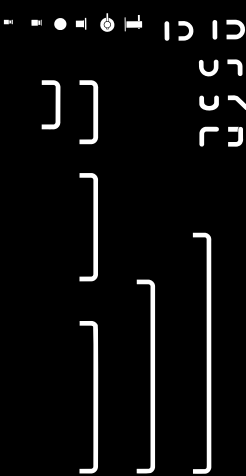
Selected product groups

Hinges

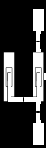


Cabinet knobs

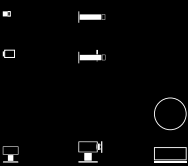
Furniture pulls



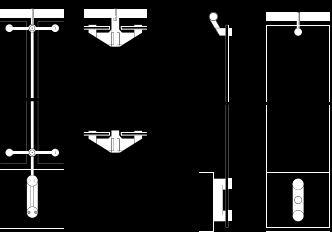
Panic exit



Door stops



Handrail



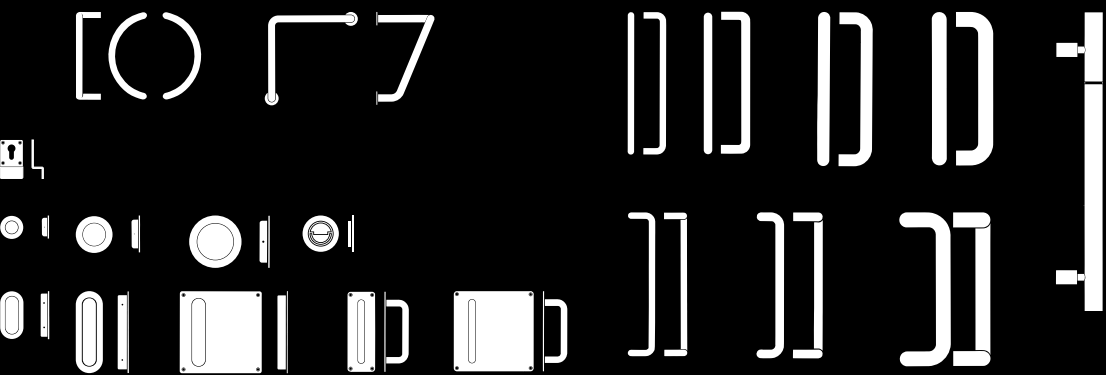
Back plates



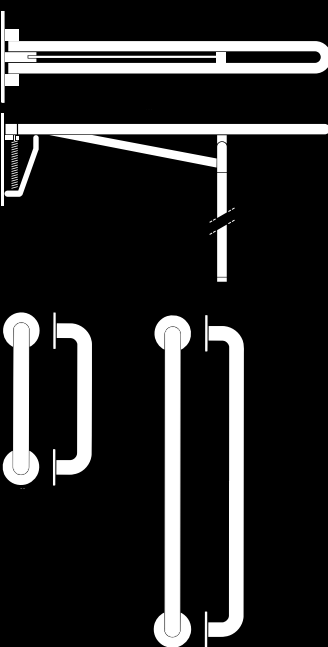
Bell pushes



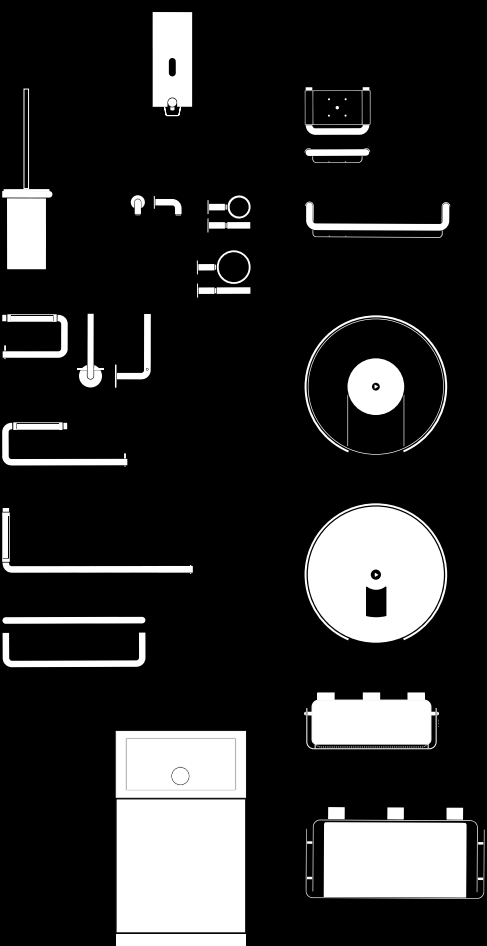
Pull handles



Disabled



Bathroom



Selected product groups

Hidden qualities



The d line manifest

We know architects. **d line** is created by architects for architects. Since the 70s, **d line** has gradually build strong relations to the architectural world and its stakeholders.

We distribute **d line** only through authorized and well-established partners around the world, who have strong market insight and a love for Danish design.

In this way, **d line** is featured in renowned architecture all around the world – from Terminal 5 at London Heathrow to the impressive Chinese Pavilion at the 2010 World Expo in Shanghai.

Today – as well as in the early days – we make it our business to gain site experience.

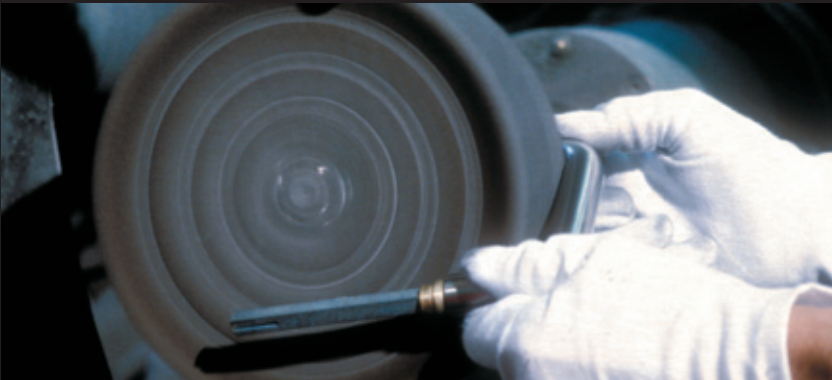
Involvement in numerous international projects facilitates dialogue with architects, engineers and specifiers from all corners of the world. This ensures a continuous flow of ideas and crucial inspiration to develop our products.

All **d line** products are manufactured in grade AISI 316, a particularly solid type of non-corrosive stainless steel. This not only ensures great finish, stability and strength, but also an elegant and easily maintained appearance.

Even in high humidity environments or climatically challenging areas, the high-quality finish of **d line** ironmongery endures.

Architect designed, value engineered and quality tested.

d line is in the detail.



Installation and Maintenance

d line has prepared this Installation and Maintenance Guide to assist the Architect in his selection of, the Contractor with his storage and fixing of, and the Maintenance Staff with their correct approach to maintenance and adjustment of **d line** hardware products.

As quality products have been chosen, it is essential they are stored, fitted and maintained correctly in order to ensure the highest level of performance during the whole of their working life.

Storage

All **d line** items are carefully packed before delivery to avoid transit damage. On receipt at site it is essential that all ironmongery is stored in a dry environment prior to installation.

After installation, it is recommended that the ironmongery is protected until the construction phase is completed.

Installation

d line products are of high quality and it is necessary that they are installed according to the appropriate fixing instruction. Fixing instructions and templates are supplied with standard products.

With regard to installation of **d line** products it is recommended to use the appropriate boring tool.

Additionally, it is advisable to use an electric screw driver.

No substitution of fixings should be undertaken without prior reference to **d line**. Any such substitution may invalidate performance statements given or implied in product literature and/or fixing instructions. The correct installation of all items of ironmongery is essential to achieve the performance levels stated.

Lever and Knob Handles

When fitting **d line** lever and knob furniture it is essential that the products are fixed using the special boring tool in accordance with the fixing instruction provided, and at right angles to the lock case. **d line** strongly recommends that the correct drill, which rotates on a square pivot inserted into the lock case follower, is used.

For wooden doors pre-drilled with a hole of less than Ø25mm, the unique **d line** drill bit must be used to prepare the hole to Ø25mm, so that the lever or knob handle can be fixed directly to the door without requiring any extra components. Due to the unique integrated ball bearing mechanism within **d line** lever and knob handles, it is necessary to use **d line's** fixing tool in order to ensure the correct fixing and adjustment to roses or back plates. However, doors in Scandinavia are generally pre-drilled with a Ø40mm hole.

For wooden doors it is necessary to use a different **d line** drill bit that prepares the hole for the patented plastic bush insert, whilst for steel doors a patented spring fixing bush is used when installing lever handles on roses. Both methods provide maximum stability to the lever furniture and reduce potential wear of the lock case.

A Torx 10 screw driver or bit is required for the installation of the lever and knob handle components. **d line** lever and knob handles are fixed with sectioned bolt counter sunk screws and can only be adjusted using a Torx 10 screw driver. This provides a positive engagement of driver and screwed recess, minimising damage to the screw head.

Pull Handles

d line pull handles are fitted by using a unique universal fixing method which allows the large selection of pull handles to fit together in either a varied or co-ordinated manner. This fixing system provides the facility to combine a pair of handles of the same diameter from two different designs within the range.

Templates are provided to give accurate fixing positions for all standard pull handles. It is important that bolt holes of the correct size, at right angles to the door face and the necessary centres, are drilled accurately. Each fixing should be tightened to ensure the pull handle is firm and stable.

For the protection of the glass, when installing on glass doors, it is of great importance to use the **d line** washer and nylon liner sleeve set.

Door Closers

After fitting in accordance with the fixing instruction and template, the door closer must be adjusted to provide a smooth closing action so that the door closes correctly. Occasional lubrication of the latch bolt, using an aerosol spray, will ensure a smooth action.

Panic Equipment

Each item should be fitted in accordance with the fixing instruction using the fixings provided.

Maintenance

Lever and Knob Handles

On installation, where the correct procedure, as per the instructions, has been carried out the lever and knob handles will not require adjustment. However, all fixings should be checked for tightness at the annual control. Any loose fixings should be adjusted. Badly fitted furniture can cause interference with the operation of the lock and, at the same time, damage the bearing surface of the furniture.

d line snap-on rose covers should only be removed using the correct **d line** Clip Key fixing tool. A screw driver blade should not be used as this will distort the rose cap out of alignment and scratch the surfaces of both product and door.

Pull Handles

Pull handles should be inspected to ensure that the fixings are appropriate with grub screws, where used, firmly in position. Any movement of the handle will damage the door surface and cause the handle to become unstable and fail when used.

Door Closers

Each door closer should be inspected for oil leakage, tightness of fixings and correct operation.

Panic Equipment

All locks and latches should be inspected to ensure that they are operating correctly, with the strike plate correctly bent to ensure smooth action of the latch bolt so that the door closes correctly.

Occasional lubrication of the latch bolt, using an aerosol spray, will ensure a smooth action.

Hinges

All hinges should be checked for tightness and lubricated on a regular basis. Where hinges are fixed on the exterior of a building it may be necessary to lubricate more often.

Care of Finishes

Today's environment exerts immense pressures on product material requirements. Products must withstand a diversification of atmospheric conditions, such as high pollution, marine locations, high humidity climates. Additionally,

products must be protected against cleaning agents/solutions and ideally the product should offer hypo-allergenic properties.

Stainless Steel

Stainless steel is renowned for the following two properties; resistance to corrosion and low maintenance requirements.

Stainless steel corrosion resistance is attributable to the presence of a thin, durable film of passive, but stable, chromium oxide. Being inert, invisible, extremely adherent and self-repairing, this film provides an unrivalled protection for the steel; should the film be damaged or removed it will regenerate independently, provided that oxygen is present to allow the reaction to occur with the chromium content of the steel. Thus the necessity to ensure regular cleaning maintenance.

Cleaning is carried out to restore the original surface appearance, prevent corrosion and maintain hygienic conditions.

Cleaning Technique

- It is important to clean stainless steel regularly.
- Initially, wash down the surface using soapy water or a mild detergent.
- Always thoroughly rinse the cleaning agent away with clean water.
- To complete the cleaning procedure dry/polish the item with a soft, dry cloth.

Within aggressive conditions, such as offshore, marine and swimming pool environments, it is especially relevant to ensure that cleaning maintenance occurs regularly.

Discoloration

If spots appear on the surface it is not due to the stainless steel, but to impurities in the water, the air or to cleaning agents that have not been thoroughly removed from the surface.

- Spots can be avoided by careful cleaning.
- If discoloration or spots occur they can be removed by using special polishing agents for stainless steel or a light scouring cream.
- Again rinse thoroughly with clean water and polish with a soft, dry cloth.

What to avoid!

- Scouring powders
- Steel wool
- Strong abrasive materials

Acid based cleaning solutions, except for hydrochloric acid, may be used on AISI 316 stainless steel as long as thoroughly rinsed with clean water afterwards.

For further information on stainless steel, please contact your local **d line** distributor for the d line Stainless Steel Technical Details information sheet.

