



# DELIVERY PROGRAM

Heavy Plate



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# HEAVY PLATE PARTNER NO. 1

Dillinger is Europe's leading producer of high-quality heavy plate. We are known around the world as a reliable, long-term partner for our customers.

Our success as a heavy-plate specialist is founded on:

- the use of ultra-modern steel and heavy-plate production processes
- customer-orientation and equitable co-operation
- innovation

Our own achievements become visible in those of our customers: in aesthetically outstanding bridge structures, modern refineries, gigantic offshore rigs and soaring high-rise buildings. Involvement in such projects is our greatest incentive.

Dillinger is tightly focused on its core steel and heavy-plate activities. The company has two heavy-plate rolling mills: the 5.5 m tandem four-high line at Dillinger, Germany, and the 5 m tandem four-high line at Dunkirk, France.

Marketing offices and steel service centres around the world ensure that every customer has the right contacts close by. See page 48 for more information.

Our customer support starts with our customers' projects. The corresponding Marketing/Sales and technical specialists combine their activities ideally to match the particular application; they co-operate with the customer from the very start of his project, via drafting of the specifications, up to and including supply of the plates. This assures the continuous development of application-based experience for the benefit of every customer. Our high-power Research and Development department, combined with our consultant

engineers, enable us to meet even the most demanding customer requirements.

This supply range overview provides you with a handy summary of our standard range of heavy-plate products and services. We also focus here on our Heavy Fabrication Division (p. 15), which enables us to supply you with plates accurately adjusted to size.

As with all dynamic companies, our supply capabilities are continuously growing. For this reason, more details, and the latest answers to your questions concerning our supply capabilities, can be found on our Internet site at [www.dillinger.de](http://www.dillinger.de) and on our special service pages at [www.dillinger.de/e-service/](http://www.dillinger.de/e-service/).

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*» Here at Dillinger, we concentrate on just one thing: exactly the right heavy plate for your needs. «*

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# TECHNICAL ORDERING AND SUPPLY CRITERIA

Dillinger can supply your heavy plate in a large range of grades—in conformity to international standards, as Dillinger special steels, or to meet customers' own specifications.

An overview of the most important grades can be found from page 21 onward. The dimension tables starting on page 38 show the standard plate thicknesses, widths and lengths available. Please note that these are only standard products; in many cases, other grades and dimensions can be agreed without difficulty.

## **Maximum dimensions, geometrical tolerances and surface qualities for heavy plate**

Dillinger heavy plate is produced in strict conformity to international standards and technical delivery conditions. We supply in accordance with EN 10029, ASTM A6, ASTM A20, ISO 7452 and other widely applied standards for limit dimensions and geometrical tolerances. Tolerances other than those defined in the relevant standards can be agreed. The surface quality of Dillinger heavy plate conforms to the specifications of EN 10163 or other international standards. Other, more extensive, requirements for surface quality can be agreed when your order is placed.

## **Plate marking**

Dillinger heavy plates bear as standard a punched marking applied using the low-stress dot-matrix technique, and/or paint markings. Other marking methods can also be agreed.

The marking applied to the plate includes the following information: Grade, heat number, parent plate and individual plate numbers, direction of rolling, manufacturer's mark, inspector's mark, and other agreed data. The standard paint marking includes the parent plate and individual plate number, the works order and item number, and the order dimensions, i. e., plate width, length and thickness. An additional marking specified by the customer can also be applied to the top surface of the plate, up to a maximum of eight lines, each of 22 characters. Paint barcode markings can be agreed for colour marking of plate edges.

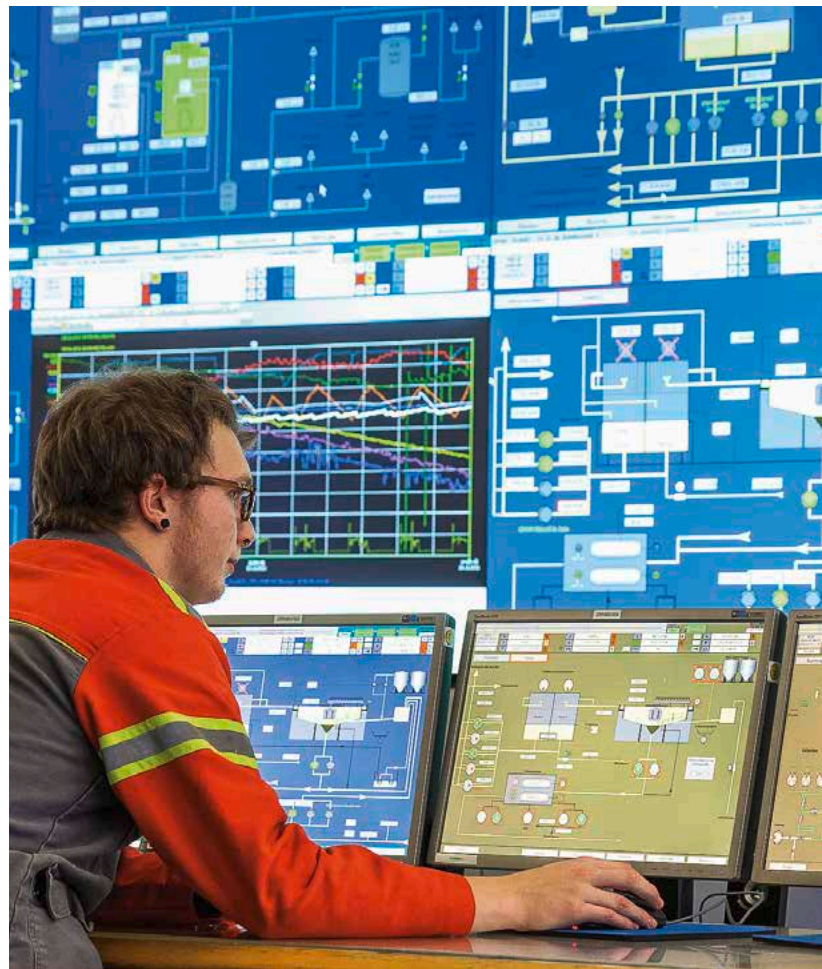
Agreements must be made at the placement of the order in cases in which special surface requirements apply and punched and/or paint marking are not required.



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» You have to go the whole way, if you want to set standards in heavy plate. That's why we keep the entire production chain in our own hands. «







Heavy plate—for us, this product signifies a broad range of dimensions and a minimum of 2,000 grades of steel.





# BRANDED STEELS

Dillinger branded products are special steels developed and optimised individually for special applications. These steels are distinguished from standard grades by their superior working and service properties, and by their exceptionally high level of quality. The special features of these branded products are summarised below:

## **DILLIDUR**

Wear-resistant steel

## **DILLIMAX**

High-strength water quenched and tempered fine-grained structural steel for welded components

## **DILLIMAX** 500 ML

High-strength thermomechanically rolled fine-grained structural steel for welded components

## **DI-RACK**

High-strength water quenched and tempered fine-grained structural steel for special offshore applications

## **DIWA**

Higher-strength alloyed fine-grained structural steel for steam boilers and high-temperature pressure vessels

## **DICREST**

Fine-grained structural steel for pressure vessels and storage tanks, with special resistance properties for use in sour-gas applications

## **DIFENDER**

High-strength fine-grained structural steel for security applications

## **DI-TANK**

Thermomechanically rolled fine-grained structural steel for oil and gas storage tanks. A sour-gas (HIC) resistant variant is also available

## **DIROS** 500

High-strength water quenched and tempered pressure-vessel steel for weight-saving pressure-vessel designs

## **DILLINAL** 460/630

Higher-strength fine-grained structural steel for fabrication of extra-lightweight tanks for road and rail transportation of liquefied gas

## **DI-MC**

Thermomechanically rolled structural-engineering steel possessing optimum working properties and weldability

## **DIWETEN**

Structural steel for steel engineering, assuring enhanced weather resistance

## **D-TECT**

Linepipe steel with inspected surface hardness for sour gas service

## **DICUT**

Heavy plate with optimised laser-cutting performance

## **DIMO**

Alloyed and non-alloyed tool steel for plastics moulds

## **DIPRO**

Security and armour steel for security and safety technology

## **DISAFE**

High-strength thermomechanically rolled fine-grained structural steel for safes and vaults

## **DICLADUR**

Roll-bonded clad dual-laminate steel for use under abrasive conditions

## **DIGEAR**

High-strength fine-grained structural steel for gear rims

## **DIWIND**

Offshore steel with the CE symbol



More details of our branded products can be found in our material data sheets and specifications, which we will be pleased to send to you—just contact your marketing partner or the central marketing and steel consulting department at Dillinger. Up-to-date material data sheets and specifications can be downloaded from [www.dillinger.de](http://www.dillinger.de).

# SPECIAL PRODUCTS



## Longitudinally profiled plates

Dillinger has an exceptionally smart solution for engineering designs that feature locally varying loads, such as heavily stressed bridge girders, for example – plates with a thickness varying across their longitudinal axis.

Such materials help save weight and welding costs, particularly in cases in which varying plate thicknesses are needed in the design, due to the pattern of bending moment acting on the component.

Dillinger supplies all structural steels, including longitudinally profiled plates, up to a minimum yield strength of 460 MPa, in normalised state or as-rolled. An extremely diverse range of profiles is available.

More information on ordering longitudinally profiled plate material can be found in our “Dillinger LP Plate” Technical Information publication. Our technical consulting service will be pleased to provide assistance with dimension-

ing, and more help is available from our on-line Feasibility Check at Dillinger E-Service.

## Roll-bonded clad plate

Dillinger supplies roll-bonded clad plates in the form of dual- or triple-layer steel with a wear-resistant cladding. The parent and cladding materials can be combined at various thickness ratios.

We would be pleased to discuss our supply capabilities in more detail with you. More information on DICALADUR dual-layer steel can be found in the relevant specifications.



**Let us advise you.** Ask us for the best heavy-plate solution for your challenges—we'll be pleased to help.  
[www.dillinger.de/kontakt](http://www.dillinger.de/kontakt)

# ADDITIONAL REQUIREMENTS

## Blasting and priming

Upon agreement, your heavy plate can also be surface-treated. The plates are descaled using steel shot on automatic descaling machines, which achieve Surface Cleanliness SA 2½ in accordance with ISO 8501-1 as standard.

In addition, a shop primer can be applied to your plates, to provide them with temporary protection against corrosion. The main types of primer available are as follows:

- Ethyl silicate/zinc
- Epoxy/iron oxide

The compatibility of the primer with any coating to be applied to the end product must be taken into account when selecting the correct primer. More detailed information can be found in the “Blasting and Protection of Heavy Plate” brochure.



**Shot blasted and primer coated heavy plates**

Download this brochure from our website at

[www.dillinger.de/downloads](http://www.dillinger.de/downloads)

## Weight and dimension parameters for surface treatment on automatic blasting and coating machines

Type of surface treatment	Dimensional and weight parameters	
Automatic descaling blasting (using steel shot)	max. width	4,500 mm
	max. length	28,000 mm
	max. plate weight	40 t
Automatic descaling blasting (using steel shot) plus shop-priming	max. thickness	200 mm
	max. width	4,500 mm
	max. length	28,000 mm
	max. per meter weight	4.0 t/m
	max. plate weight	32 t

*Larger dimensions and higher item weights are possible on agreement.*

## Additional properties

The requirements in the relevant standards are just that: standard requirements. In many cases, Dillinger steels are superior to the standard solution, thanks to their particularly high quality. Special additional properties can also be specified in agreement with Dillinger for special requirement profiles. The following lists a number of the most frequently specified requirements, and the answers that Dillinger provides:

### Low carbon equivalents

Reduced carbon equivalents can be agreed with Dillinger in order to improve the plate's suitability for processing. The levels of specific elements can in many cases also be individually adjusted.

### Increased resistance to hydrogen-induced cracking (HIC)

Dillinger assures homogenous resistance to HIC throughout the plate—in steels of the DICREST and DI-TANK series, for example, and also in pipe plate. The necessary analysis, the so-called HIC test, is performed in accordance with NACE TM 0284.

### Defined resistance to sulphide-stress cracking (SSC)

In addition to HIC testing, Dillinger can also perform the SSC test if required. The conditions for this test must be agreed when the order is placed.

### Verification of insensitivity to embrittlement in CrMo-alloyed pressure-vessel steels

Verification of insensitivity to embrittlement using the Step Cooling Test can be agreed. Extremely low values for the temper embrittlement characteristic—the J (Watanabe) and X (Bruscato) factors—can be agreed with Dillinger.

### Laser-cutting characteristics

In co-operation with machine-makers and laser-cutting firms, Dillinger has developed the DICUT range of steels, which are specially optimised for laser cutting. These steels are designed to achieve high cut quality even at elevated cutting speeds. This is assured by these grades' carefully harmonised chemical composition, their special surface quality, high flatness and low residual stresses. See the DICUT steels specifications for details.

### Special flatness and geometrical tolerances

Extremely tight flatness tolerances are frequently required in thick, heavy and wide plates, for use in mechanical and plant engineering, in particular. The DIPLAN specification has been specially developed to meet these demanding requirements, which go significantly beyond the data specified in the EN 10029 standard. More detailed information can be found in the DIPLAN specification.

Much tighter thickness tolerances are necessary in addition to special flatness and surface-quality requirements for applications such as crane booms. Please see the DILLIMAX TL specification for high-strength fine-grained structural steels.

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» Even for the most demanding specification, you can be sure: We'll deliver what we promise. «



### Additional properties

#### Special surface specifications

Detailed information on special requirements for surface quality, such as for the lifting arms of earthmoving equipment and formwork panels for visible concrete elements, can be found in the OFL-L and OFL-S specifications.

#### Special qualifications

Demonstration of the suitability of our plate material by means of qualification and approval is mandatory in some steel-using sectors. These are immediately available for the most widely used steels, and can be supplied on request. In special cases, performance of the necessary tests and analyses prior to or during implementation of your project can be agreed.

#### Other additional requirements

Other additional requirements can also be incorporated upon agreement, and met in accordance with the widely applied standards, such as deformation properties in the thickness

direction (“Z properties” in accordance with EN 10164), reduced Si and P contents for subsequent hot-dip galvanising, cleanliness requirements (EN 10247), enhanced Charpy V-notch impact test data or ultrasonic testing (EN 10160 or similar, please also see the “Ultrasonic inspection” section, page 17).



# HEAVY PLATE FABRICATION

Plates can be further processed and components prefabricated on our Heavy Fabrication Division's facilities in Dillingen.

Our customers use the services provided by our Heavy Fabrication Division in a diverse range of ways—when their own forming and fabrication capacities reach their limits, for example. They are able in this way to augment and expand their own production and fabrication capabilities and capacities. Essentially, our Heavy Fabrication Division can provide the following operations:

- High-accuracy preparation and machining of your plates by means of thermal processes and machining
- Hot or cold forming—depending on the product, the dimensions and the application—of thick and large-format plates to shell sections, vessel heads and other pressings—even in higher-strength quenched and tempered steels—for use in steam boiler and pressure-vessel fabrication, in particular
- Component welding (shell sections and steel teeming ladles, for example)
- Flame cutting of components using an **NC-controlled oxy-cutting machine**
- Contract heat treatment in the treatment furnaces of the Heavy Fabrication division

Plates of individual weights of up to 50 t can be cut to size with high accuracy on a range of cutting machines. In addition to the services offered by our Heavy Fabrication Division, a link to Dillinger Group's steel stockholding and flame-cutting affiliates can be found in the "Contacts" section on page 48.

The **plate-edge milling machine** creates welding edges that meet the tightest tolerance requirements on large-format plates of up to 160 mm thickness and up to 45 t individual plate weight. Typical applications for such edge-milled plates include:

- the offshore industry, and the wind-energy sector, in particular
- hydropower and hydraulic engineering steelwork (pressure lines)
- tank fabrication
- boiler and pressure-vessel engineering

Edge-machined plates can also be bent to radius and supplied paint-coated, offering the potential for immediate installation upon arrival on site.

An 86,000 kN **four-roll bending machine** permits cold forming of cylindrical shell sections up to a section length of 4,300 mm in thicknesses of up to above 200 mm. Hot forming permits the production of shell sections up to above 400 mm wall thickness. The extremely thick and heavy plates supplied by our rolling mills can be formed into single-piece non-welded vessel heads with wall thicknesses up to around 200 mm using the facilities in our **pressing shop works**:

- Hemispherical vessel heads with a vessel diameter of up to approx. 3,800 mm
- Torispherical/elliptical vessel heads with a diameter of 4,500 mm
- Flat vessel heads with a diameter of 4,700 mm

Larger-diameter vessel heads are produced and fabricated in segments. The Dillinger range also includes the most diverse types of pressings (e.g. spherical and conical segments, transition pieces, etc.), designed in conformity to our customers' specifications.

The personnel, facilities and production methods employed in our Heavy Fabrication Division meet European and international standards and codes; the Division is also qualified under a range of approval procedures (e.g. ASME codes, AD HP0, EN 1090). Further information can be found in the Heavy Fabrication Division delivery program.

» If you wish, we can perform the initial fabrication operations—  
from machined plates, via single- and multi-piece vessel heads,  
up to and including longitudinally welded shell sections. «

# INTEGRATED MANAGEMENT SYSTEM (IMS)

Dillinger operates an Integrated Management System (IMS) which combines the functions of quality management, environmental management, energy management and industrial health and safety.

This comprehensive system defines the strategic responsibility and operational practice for these fields throughout all departments and divisions of the company.

All sectors are inspected by means of internal and external audits held at regular intervals.

## **Health and safety**

Safety is a corporate aim of identical ranking to cost-efficiency, productivity and quality at Dillinger. Our target is zero accidents in all working processes and procedures. We are committed to ensuring that all persons working within the company are able to perform their tasks in safety and with no danger to their health. Attainment of these objectives is assisted by comprehensive occupational medical provisions, accompanied by systematic occupational and general medical examinations and advice. We regard physical and social well-being as a holistic task.

## **Environmental protection**

The protection of the environment is an integral component of our corporate policy. The avoidance of pollution, the conservation of resources and the making of environmentally safe products are the preconditions for a secure future for the company. We know that we can secure our locations for future generations only by means of sustainable action. The plant's facilities are operated using the best and most economically rational technology available in order to assure maximum safety for the benefit both of people and the environment. That we adhere to legal and official requirements is simply a matter of course; we also undertake unceasing efforts to perform better than these minimum requirements.

## **Quality Management**

The production, inspection and documentation of the products made at Dillinger are performed in adherence to the specified requirements, which are defined by German and international standards and codes, our customers' specifications and our own internal standards. The entire sequence of production takes the form of a planned and defined chain of operations and inspections. The production and inspection schedules used include both internal and contractually agreed provisions, and official acceptance inspections, in particular. At Dillinger, these are performed by accredited laboratories. Accreditation exists for acceptance inspection in accordance with ISO/IEC 17025, inc. the necessary test/inspection laboratories, works acceptance inspectorate and non-destructive testing departments.

The individual production operations, the subsequent inspections, and their results, are documented step-by-step in our IT systems, and validated against specified requirements. The status of implementation of an order is therefore known and traceable at all times. At Dillinger, all processes and products are thus subject, from the initial enquiry up to and including final shipment, to a comprehensive QM system that assures quality all the way through to handover to the customer.

## **Certificates and approvals**

In addition to the system certificates for the standards and accreditations incorporated within the IMS, Dillinger also possesses numerous other certificates and approvals based on specific codes and standards. These include, for example, approvals from all known classification societies, such as ABS, BV, DNV GL, LR, and approval in accordance with the European Pressure Equipment Directive (2014/68/EU). The Heavy Fabrication Division additionally possesses the ASME S, U and U2 certificates (stamps) for boilers and pressure vessels.





### **Quality Assurance**

Steels made at Dillinger are constantly checked for adherence to the characteristics and properties set down in the respective codes, standards, materials codes and customer specifications. Non-destructive testing methods performed on the plate itself during production, and destructive testing performed in the inspection laboratory on plate samples, are available for inspection purposes. Where no other conditions have been agreed, inspection of surface quality is performed in accordance with the conditions defined by EN 10163 and checking of geometry and dimensions in accordance with EN 10029.

### **Ultrasonic inspection**

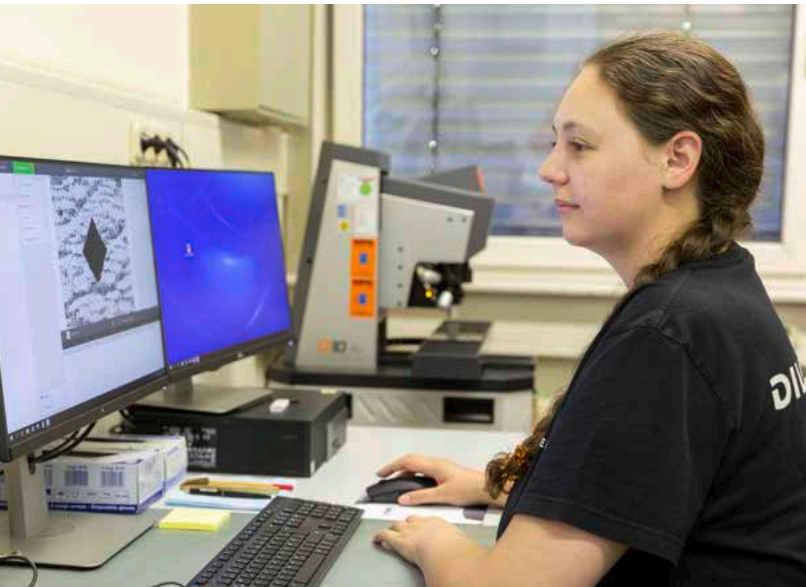
The internal quality of Dillinger plates, i. e., their freedom from impermissible material segregations and inclusions, is assessed using ultrasound. Ultrasonic (US) inspections can be performed manually, using US inspection systems,

or on an automated ultrasonic heavy-plate inspection machine. Ultrasonic inspection can be performed in accordance with German, European and international standards, where specified in the order; these include:

- EN 10160
- ASTM A 435, ASME SA 435
- ASTM A 578, ASME SA 578

and, upon agreement, all other standards and customer specifications.

All classes of surface and sub-surface zone, and all combinations of classes, are possible. The scope of inspection specified in the standard is routinely implemented; other scopes of inspection for the surface and the sub-surface zone are also possible on request. The inspection personnel are qualified and certified to Level 2 in accordance with EN 473/DIN EN ISO 9712 and, where necessary, SNT-TC-1A.



» We perform a broad range of analyses, always using the latest state-of-the-art equipment. «

### Testing of samples

Adherence to the steel's specified chemical composition is verified by means of spectral analytical inspections. The samples taken from the plate are submitted to various destructive-testing procedures in the inspection laboratory. Simulated heat treatments of sample material can also be performed if specified in the order. Heat-treatment processes such as normalising annealing, hardening, tempering, stress-relieving annealing and soft annealing can be performed.

Tensile testing (in accordance with ISO 6892-1, for example), the Charpy V-notch impact test (in accordance with ISO 148-1, for example) and Brinell, Rockwell and Vickers hardness testing serve to verify mechanical and technological properties. Metallographic and corrosion-chemical tests (including HIC testing in accordance with NACE TM 0284) can also be performed. Testing and inspection under the supervision of third party inspectors can be agreed.

### Inspection Certificate

The inspection certificate is issued in accordance with the plate supplied. Various types, covering differing scopes of inspection, can be selected (see table p. 19). Our inspection certificates fulfil the requirements of European Standard EN 10204 and of the ISO 10474 international standard. The scope of certification is additionally encoded in accordance with EN 10168 on our inspection certificates. The units used in the inspection certificates relate to basic SI (Système International) units, e. g., millimetres, kilograms, etc. Other units, such as inches, and lbs., can be used upon special request.

Additional documentation requirements can be agreed.

### E-Connect

In future, every plate from Dillinger can be identified using an App.

This will make it possible to display all plate data – including the contents of the inspection certificate, for example – on mobile devices.



### Inspection Certificates

Inspection Certificates can be issued in German, French and/or English. They can also be sent by Fax or e-mail. Inspection certificates are also available in the Internet, on the service pages at [www.dillinger.de/e-service/](http://www.dillinger.de/e-service/) or as a data transfer.

### Inspection certificates in accordance with EN 10204

Type	Designation	Content	Confirmation of certification by
2.1	Certificate of Compliance	Confirmation of accordance with the order	the producer/ the producer's acceptance inspector
2.2	Analysis Certificate *	Confirmation of accordance with the order, stating the results of non-specific inspection	the producer/ the producer's acceptance inspector
3.1	Acceptance Certificate 3.1	Confirmation of accordance with the order, stating the results of specific inspection	the producer's acceptance inspector, who is independent of the production department
3.2	Acceptance Certificate 3.2	Confirmation of accordance with the order, stating the results of specific inspection	the producer's acceptance inspector, who is independent of the production department, and the acceptance inspector commissioned by the customer or the acceptance inspector specified in the official regulations/standards

\* Dillinger designation only with statement of heat analysis



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# GRADES AND DIMENSION RANGES

The following overviews of “Grades” and “Dimensions” tell you the **standard** grades and the **standard** dimensions and formats which can be ordered from Dillinger. **Other grades in other formats and dimensions are available in most cases — just contact us!**

The list of grades firstly groups the steels by applications, such as “Steels for pressure-vessel engineering”. The relevant standards and the corresponding grade designations can be found in alphabetical order within the section for the particular application. Maximum plate thickness is stated as defined by the applicable standard or by technical capabilities at Dillinger for every grade. A reference to the applicable dimension table can also be found here.

Please note: **plate dimensions larger than those stated in the tables can be agreed in most cases**, as the list of grades generally states only the plate thicknesses specified in the relevant standards for the particular grade. Just contact us if you need more details!

Please also note that the available dimensions of steels subject to approval by an acceptance organisation or supervisory authority may change with time.

The following conditions apply to **all orders** for heavy plate:

- Only plate lengths of  $\geq 2$  m can be supplied
- Minimum item weight is 4.5 t
- Please enquire for plate weights of  $>35$  t and plate lengths of  $> 25$  m
- Facilities for transportation (rail, water, road) must in all cases be verified prior to orders for plates of  $>18$  m in length and/or  $> 4,200$  mm in width.



## E-Service

You need to know possible plate dimensions, quick and easily? The interactive enquire facility on our service pages at [www.dillinger.de/e-service](http://www.dillinger.de/e-service) gives you the latest information.

# GRADES UNDER CURRENT STANDARDS

## Steels for steel construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
EN 10025-2: unalloyed structural steels *	S 185		410	1
	S 235 JR, JR+N, J0, J0+N		250	1
	S 235 J2, J2+N		400	1
	S 235 JRC, JRC+N, J0C, J0C+N, J2C, J2C+N		30	1
	S 275 JR, JR+N, J0, J0+N		250	1
	S 275 J2, J2+N		400	1
	S 275 JRC, JRC+N, J0C, J0C+N, J2C, J2C+N		30	1
	S 355 JR, JR+N, J0, J0+N		250	1
	S 355 J2, J2+N, K2, K2+N		450	1
	S 355 J0C, J0C+N, J2C, J2C+N, K2C, K2C+N		30	1
	E 295, E 295+N		250	1
	E 335, E 335+N		250	1
E 360, E 360+N		250	1	
EN 10025-3: normalized/normalizing rolled fine-grained structural steels	S 275 N, NL		250	1
	S 355 N, NL		250	1
	S 420 N, NL		250	1
	S 460 N		200	1
	S 460 NL	14	200	1
EN 10025-4: thermomechanically rolled fine- grained structural steels *	S 275 M, ML	8	A	2
	S 355 M, ML	8	150	2
	S 420 M, ML	8	120	2
	S 460 M, ML	8	150	2
Thermomechanically rolled fine- grained structural steels in accordance with Dillinger material data sheet	DI-MC 355 B, T	8	150	2
	DI-MC 460 B, T	8	150	2
	DILLIMAX 500 ML	10	A	2
	DI-MC 690 B, T	20	A	2
EN 10025-5: weather-resistant steels	S 235 J0W, J0W+N, J2W, J2W+N		150	1
	S 355 J0W, J0W+N, J2W, J2W+N, K2W, K2W+N		150	1
Weather-resistant steels acc. to Dillinger Material Data Sheet	DIWETEN 235	8	150	1
	DIWETEN 355	8	150	1
	DIWETEN 355 M/ML	8	A	2
	DIWETEN 460 M, ML	8	A	2
EN 10025-6: fine-grained structural steels, quenched and tempered	S 460 Q, QL, QL1	6	150	4
	S 500 Q, QL	6	150	4
	S 500 QL1	6	A	4
	S 550 Q, QL	6	150	4
	S 550 QL1	6	A	4
	S 620 Q, QL, QL1	6	150	4
	S 690 Q, QL, QL1	6	150	4
	S 890 Q, QL, QL1	6	100	4
S 960 Q, QL	6	50	4	

\* for thicknesses beyond the standard, the mechanical requirements of the highest thickness range in the standard are valid

**Steels for steel construction**

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table	
Fine-grained structural steels in quenched and tempered state in accordance with Dillinger material data sheet	DILLIMAX 500 B, T, E	6	A	4	
	DILLIMAX 550 B, T, E	6	A	4	
	DILLIMAX 690 B, T, E	6	255	4	
	DILLIMAX 890 B, T, E	6	100	4	
	DILLIMAX 965 B, T, E	6	120	4	
	DILLIMAX 1100	8	40	4	
<b>Special applications for EN structural steels</b>					
DIN EN plus DBS 918002-02 (incl. CE mark)	S235 J0+N, J2+N		100	1	
	S235 J0W+N, S235J2W+N		100	1	
	S235 J0C+N, J2C+N		30	1	
	S275 J0+N, J2+N		100	1	
	S275 N, NL		250	1	
	S275 M, ML	8	A	2	
	S275 J0C+N, J2C+N		30	1	
	S355 J0+N, J2+N, K2+N		250	1	
	S355 J0W+N, J2W+N, K2W+N		100	1	
	S355 J0C+N, J2C+N, K2C+N		30	1	
	S355 N, NL		250	1	
	S355 M, ML	8	120	2	
	S420 N, NL		100	1	
	S420 M, ML	8	100	2	
	S460 N		100	1	
	S460 NL	14	100	1	
	S460 M, ML	8	100	2	
	NF EN plus CCTG Fasc 66 (incl. marque NF)	S 235 JR+N, J0+N, J2+N		250	1
		S 235 J0W+N, J2W+N		150	1
		S 275 JR+N, J0+N, J2+N		250	1
S 275 N, NL			150	1	
S 275 M, ML		8	A	2	
S 355 JR+N, J0+N, J2+N, K2+N			250	1	
S 355 N, NL			150	1	
S 355 M, ML		8	120	2	
S 355 J0W+N, J2W+N, K2W+N			150	1	
S 420 N, NL			150	1	
S 420 M, ML		8	120	2	
S 460 N			150	1	
S 460 NL		14	150	1	
S 460 M, ML		8	120	2	
S 460 Q, QL, QL 1		6	150	4	

A Please ask for max. plate thickness available case by case

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# GRADES UNDER CURRENT STANDARDS

## Steels for steel construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
NF EN plus SNCF Livret 2-32 (incl. marque NF)	S 235 JR, J0, J2G3		250	1
	S 275 JR, J0, J2G3		250	1
	S 355 JR, J0, K2G3		250	1
	S 355 N, NL		150	1
	S 355 M, ML	8	63	2
	S 420 M, ML	8	63	2
	S 460 M, ML	8	63	2
ASTM - steel grades for steel construction (list following standard-no.) *	A 36 [M]		410	1
	A 283 [M] Gr C, D		255	1
	A 514 [M] Gr B, F, H, Q		A	4
	A 572 [M] Gr 42 [290]		153	1
	A 572 [M] Gr 50 [345]		125	1
	A 572 [M] Gr 55 [380], 60 [415], 65 [450]		A	1
	A 573 [M] Gr 58 [400], 65 [450], 70 [485]		40	1
	A 588 [M] Gr A, B		A	1
	A 633 [M] Gr C		102	1
	A 633 [M] Gr D		A	1
	A 709 [M] Gr 36 [250], 50 [345], 50W [345W]		A	1
	A 709 [M] Gr HPS 50W [HPS 345W], HPS 70W [HPS 485W]	8	A	2
	A 1066 [M] Gr 50 [345], 60 [415], 65 [450], 70 [485]	8	A	2

## Steels according to the Rules of ABS, BV, DNV, GL, KRS, ...

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
ABS - American Bureau of Shipping	AB-A, B, D, E		51	1
	AB-AH32, DH32, EH32		150	1
	AB-AH32TM, DH32TM, EH32TM	8	100	2
	FH32TM		A	2
	AB-AH36, DH36, EH36		150	1
	AB-AH36TM, DH36TM, EH36TM	8	100	2
	FH36TM		A	2
	AB-AH40, DH40, EH40, FH40		A	2
	AB-AQ43, DQ43, EQ43, FQ43		A	4
	AB-AQ47, DQ47, EQ47		A	2
	AB-AQ51, DQ51, EQ51, FQ51		A	4
	AB-AQ63, DQ63, EQ63		A	4
	AB-AQ70, DQ70, EQ70, FQ70		A	4
	AB-V057		A	1

\* for thicknesses beyond the standard , the mechanical requirements of the highest thickness range in the standard are valid



### Steels according to the Rules of ABS, BV, DNV, GL, KRS, ...

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
BV – Bureau Veritas	BV-A, B, D		100	1
	BV-E		80	1
	BV-AH32, DH32, EH32		100	1
	BV-AH32TM, DH32TM, EH32TM	8	100	2
	BV-AH36, DH36, EH36		100	1
	BV-AH36TM, DH36TM, EH36TM	8	100	2
	BV-AH40, DH40, EH40		A	2
	BV-5%Ni		A	4
	BV-9%Ni		A	1
DNV GL	VL-A TM, VL-B TM, VL-D TM, VL-E TM		100	2
	VL-A N, VL-B N, VL-D N, VL-E N		150	1
	VL-A32N, VL-D32N, VL-E32N		150	1
	VL-A32TM, VL-D32TM, VL-E32TM	8	140	2
	VL-F32TM		100	2
	VL-A36N, VL-D36N, VL-E36N		150	1
	VL-A36TM, VL-D36TM, VL-E36TM	8	140	2
	VL-F36TM		100	2
	VL-A36QT, VL-D36QT, VL-E36QT, VL-F36QT		150	4
	VL-A40TM, VL-D40TM, VL-E40TM, VL-F40TM		100	2
	VL-AO420TM, DO420TM, EO420TM, FO420TM		A	2
	VL-AO420QT, DO420QT, EO420QT		A	4
	VL-AO460TM, DO460TM, EO460TM, FO460TM		A	2
	VL-AO460QT, DO460QT, EO460QT, FO460QT		A	4
	VL-AO500TM, DO500TM, EO500TM, FO500TM		A	2
	VL-AO500QT, DO500QT, EO500QT, FO500QT		A	4
	VL-AO550QT, DO550QT, EO550QT		A	4
	VL-AO620QT, DO620QT, EO620QT		A	4
	VL-AO690QT, DO690QT, EO690QT, FO690QT		A	4
	VL-2-4N, VL-4-4N		A	1
	VL-2-4L N, VL-4-4L N		A	1
	VL-4-4L TM		A	2
	VL-0.5Ni/a N, VL-0.5Ni/b N		A	1
	VL-5Ni N		A	1
	VL-5Ni QT		A	4
	VL-9Ni N		A	1

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# GRADES UNDER CURRENT STANDARDS

## Steels according to the Rules of ABS, BV, DNV, GL, KRS, ...

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
KRS – Korean Register of Shipping	KR-AH32TM, DH32TM, EH32TM	8	100	2
	KR-AH36TM, DH36TM, EH36TM	8	100	2
	KR-AH40, DH40, EH40		A	2
LRS – Lloyd's Register of Shipping	LR-A, B, D, E		170	1
	LR-AH32, DH32, EM32		170	1
	LR-AH32TM, DH32TM, EH32TM	8	100	2
	LR-FH32		A	1
	LR-FH32TM		A	2
	LR-AH36, DH36, EH36		150	1
	LR-AH36TM, DH36TM, EH36TM	8	100	2
	LR-FH36TM	8	40	2
	LR-FH36		A	1
	LR-AH40, DH40, EH40, FH40		A	2
	LR-EH46, FH46		A	4
	LR-LT-AH32, LT-DH32, LT-EH32, LT-FH32		A	1
	LR-LT-AH32TM, LT-DH32TM, LT-EH32TM, LT-FH32TM		A	2
	LR-LT-AH36, LT-DH36, LT-EH36, LT-FH36		A	1
LR-LT-AH36TM, LT-DH36TM, LT-EH36TM, LT-FH36TM		A	2	
LR-5Ni		A	4	
RINA – Registro Italiano Navale	RI-A, B, D, E		100	1
	RI-AH32, DH32, EH32		170	1
	RI-AH32TM, DH32TM, EH32TM	8	100	2
	RI-AH36, DH36, EH36		170	1
	RI-AH36TM, DH36TM, EH36TM	8	100	2
	RI-AH40, DH40, EH40		A	2
	RI-510LF		A	1
RS – Russian Maritime Register of Shipping	RS-A, B, D		100	1
	RS-E		80	1
	RS-A32, D32, E32		100	1
	RS-A32TM, D32TM, E32TM	8	100	2
	RS-A36, D36, E36		150	1
	RS-A36TM, D36TM, E36TM	8	100	2
	RS-F36		A	1
	RS-F36TM		A	2
RS-F690		A	4	

### Steels according to the Rules of ABS, BV, DNV, GL, KRS, ...

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
Fine-grained structural steels, quenched and tempered, for special use acc. to MIL-Spec S-16216	HY 80		A	4
	HY 100		A	4
ASTM - steel grades for shipbuilding	A 131 [M] Gr A, B, D, E		102	1
	A 131 [M] Gr AH32, DH32, EH32		102	1
	A 131 [M] Gr FH32		A	1
	A 131 [M] Gr AH36, DH36, EH36		102	1
	A 131 [M] Gr FH36		A	1
	A 131 [M] Gr AH36TM, DH36TM, EH36TM, FH36TM	8	77	2

### Steels for pressure vessel construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
EN 10028-2: unalloyed and alloyed high-temperature steels	P 235 S		60	1
	P 265 S		60	1
	P 275 SL		60	1
EN 10028-2: Unlegierte und legierte warmfeste Stähle	P 235 GH		250	1
	P 265 GH		250	1
	P 295 GH		250	1
	P 355 GH		250	1
	16 Mo 3		250	1
	18 MnMo 4-5		150	1
	18 MnMo 4-5	> 150	250	4
	20 MnMoNi 4-5		250	4
	15 NiCuMoNb 5-6-4		150	1
	15 NiCuMoNb 5-6-4	> 100	200	4
	13 CrMo 4-5	6	150	1
	13 CrMo 4-5	> 100	250	4
	13 CrMoSi 5-5+NT	6	100	1
	13 CrMoSi 5-5+QT	6	180	4
	10 CrMo 9-10	6	100	1
	10 CrMo 9-10	> 60	250	4
	12 CrMo 9-10		250	1
	12 CrMo 9-10		250	4
	13 CrMoV 9-10		A	4
	12 CrMoV 12-10		A	4

A Please ask for max. plate thickness available case by case

B The available plate dimensions for steels according to this Dillinger Material Data Sheet or specification are advised upon special request

# GRADES UNDER CURRENT STANDARDS

## Steels for pressure vessel construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
High-temperature steels acc. to Dillinger Material Data Sheet and/or VdTÜV-Material Data Sheet	DIWA 353, 13 MnNiMo 5-4	6	150	1
	DIWA 373, 15 NiCuMoNb 5	6	150	1
	DIWA 373, 15 NiCuMoNb 5	> 150	180	4
	DIWA 393, 20 MnMoNi 4-5	30	250	4
EN 10028-3: fine-grained steels, normalized	P 275 NH, NL1		250	1
	P 275 NL2		237	1
	P 355 N, NH, NL1		250	1
	P 355 NL2		237	1
	P 460 NH, NL1, NL2		100	1
Fine-grained steels acc. to Dillinger-/VdTÜV-Material Data Sheet for tank wagons/ tank containers	DILLINAL 460-630 N, NL	7	20	1
	see EN 10028-3 option 5 as well as table 4, footnote d)			
EN 10028-4: Ni-alloyed low-temperature steels	11 MnNi 5-3		80	1
	13 MnNi 6-3		80	1
	15 NiMn 6		A	1
	12 Ni 14		80	1
	X 12 Ni 5		50	1
	X 8 Ni 9 +NT640		A	1
	X 8 Ni 9 +QT640, +QT680		A	4
	X 7 Ni 9		A	4
EN 10028-5: fine-grained steels, thermomechanically rolled	P 355 M, ML1, ML2	8	63	2
	P 420 M, ML1, ML2	8	63	2
	P 460 M, ML1, ML2	8	63	2
Thermomechanically rolled special-purpose fine-grained structural steels in accordance with Dillinger material data sheet	P 420 M HT L2, K4	10	100	2
	DI-TANK 355	10	40	2
	DI-TANK 415	10	40	2
	DI-TANK 355 HIC	10	40	2
EN 10028-6: fine-grained steels, quenched and tempered	P 355 Q, QH, QL1, QL2		150	4
	P 460 Q, QH, QL1, QL2		150	4
	P 500 Q, QH, QL1		150	4
	P 500 QL2		A	4
	P 690 Q, QH, QL1, QL2		150	4
Quenched and tempered special-purpose fine-grained structural steels in accordance with Dillinger material data sheet	DIROS 500 HT, S	10	130	4
	DILLIMAX 690 PE	10	150	4

### Steels for pressure vessel construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
ASTM A .../ASME SA ... : steel grades for pressure vessel construction (list following standard-no.)	A/SA 203 [M] Gr D, E		65	1
	A/SA 203 [M] Gr F		A	4
	A/SA 204 [M] Gr A	26	130	1
	A/SA 204 [M] Gr B		80	1
	A/SA 204 [M] Gr C		25	1
	A/SA 285 [M] Gr A, B, C		51	1
	A/SA 299 [M] Gr A		205	1
	A/SA 299 [M] Gr B		A	1
	A/SA 302 [M] Gr A, B, C, D		A	1
	A/SA 353 [M]		A	4
	A/SA 387 [M] Gr 11 Cl 1, 2	6	250	1
	A/SA 387 [M] Gr 12 Cl 1		A	1
	A/SA 387 [M] Gr 12 Cl 2	6	250	1
	A/SA 387 [M] Gr 22 Cl 1		A	1
	A/SA 387 [M] Gr 22 Cl 2	6	250	1
	A/SA 455 [M]		A	1
	A/SA 515 [M] Gr 60 [415], 65 [450], 70 [485]		A	1
	A/SA 516 [M] Gr 55 [380]		255	1
	A/SA 516 [M] Gr 60 [415], 65 [450], 70 [485]		205	1
	A/SA 517 [M] Gr B, F, H		A	4
	A/SA 533 [M]		A	4
	A/SA 537 [M] Cl 1		102	1
	A/SA 537 [M] Cl 2	6	35	4
	A/SA 537 [M] Cl 3		A	4
	A/SA 542 [M]		A	4
	A/SA 543 [M]		A	4
	A/SA 553 [M] Type I		A	4
	A/SA 612 [M]		A	1
	A/SA 662 [M] Gr A, B, C		A	1
	A/SA 737 [M] Gr B		75	1
	A/SA 737 [M] Gr C		A	1
	A/SA 738 [M] Gr A		63	1
	A/SA 738 [M] Gr B, C, D, E		A	4
	A/SA 841 [M]		A	2

A Please ask for max. plate thickness available case by case

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# GRADES UNDER CURRENT STANDARDS

## Steels for case-hardening, quenching and tempering

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
EN 10083-2: unalloyed steels, for quenching and tempering	C 35 +N, C 40 +N		250	1
	C 35 +U, C 40 +U		400	1
	C 45 +N	10	250	1
	C 45 +U	10	305	1
	C 55 +U / C55 +N	10	215	1
	C 60 +N		250	1
	C 22E +N		100	1
	C 22E +U		400	1
	C 35E +N, C 40E +N		250	1
	C 35E +U, C 40E +U		400	1
	C 45E +N	10	250	1
	C 50E +N	10	250	1
	C 45E +U		305	1
	C 50E +U	10	300	1
	C 55E +U, C 55E +N	10	215	1
	C 60E +N		250	1
	28 Mn 6		A	1
EN 10083-3: alloyed steels, for quenching and tempering	25 CrMo 4		A	1
	34 CrMo 4		A	1
	42 CrMo 4		A	1
	50 CrMo 4		A	1
	51 CrV 4		A	1
	20 MnB 5		A	1
	30 MnB 5		A	1
	38 MnB 5		A	1
	27 MnCrB 5-2		A	1
	33 MnCrB 5-2		A	1
	39 MnCrB 6-2		A	1
EN 10084: unalloyed steels for case-hardening	C 10E+N, C 15E+N, C 16E+N		160	1
	C 10E+U, C 15E+U, C 16E+U	8	160	1
EN 10084: alloyed steels for case-hardening	16 MnCr 5+N		200	1
	16 MnCr 5+U	8	200	1
	20 MnCr 5+N		200	1
	20 MnCr 5+U	8	200	1
	20 MoCr 4		A	1
Alloyed quenched and tempered steels in accordance with Dillinger material data sheet	ASTM A829 Grade 4140	12	300	B
	ASTM A829 Grade 4142	12	300	B
ASTM: unalloyed and alloyed steels for case-hardening, quenching and tempering	A 829 [M] Gr 4130 ... 4145		A	1
	A 830 [M] Gr 1006 ... 1060		A	1
	others		A	

Structural steel  
Shipbuilding  
Pressure-vessel  
Case-hardening, quenching & tempering  
Plastics moulds  
Wear-resistant  
Offshore  
Pipeline  
Security & Safety  
Mechanical engineering  
Table of dimensions

### Steels for plastics moulds in accordance with Dillinger material data sheet

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
	DIMO C45	10	305	B
	DIMO C55	10	215	B
	DIMO 2311	12	170	B
	DIMO 2312	9	215	B
	DIMO 2738	12	165	B
	DIMO 2767		A	1
	DIMO 30H	12	200	B
	DIMO 30M	12	160	B
	DIMO 42H	12	205	B
	DIMO 42M	12	165	B
	DIMO P20	12	165	B

### Steels for cold forming

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
EN 10149-2: steels for cold forming, thermomechanically rolled	S 315 MC	8	A	2
	S 355 MC	8	30	2
	S 420 MC	8	20	2
	S 460 MC, S 500 MC	8	40	2
	S 550 MC	8	A	2
EN 10149-3: steels for cold forming, normalized or normalizing rolled	S 260 NC, S 315 NC, S 355 NC, S 420 NC		20	1

### Wear-resistant steels in accordance with Dillinger material data sheet

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
	DILLIDUR 325 L		50	4
	DILLIDUR 400	6	150	4
	DILLIDUR 450	8	100	4
	DILLIDUR 500	8	100	4
	DILLIDUR 550	10	51	4
	DILLIDUR IMPACT	40	150	4

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# GRADES UNDER CURRENT STANDARDS

## Steels for offshore constructions

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
EN 10225: steels for stationary offshore constructions	S 355 G2, G3 +N		A	1
	S 355 G5, G6 +M		A	3
	S 355 G7, G8, G9, G10 +N		A	1
	S 355 G7, G8, G9, G10 +M		A	3
	S 420 G1, G2 +M		A	3
	S 420 G1, G2 +QT		A	4
	S 460 G1, G2 +M		A	3
S 460 G1, G2 +QT		A	4	
API Spec 2MT1: steel for offshore constructions	2MT1		63	1
API Spec 2H: steels for offshore constructions, normalized	2H-42		102	1
	2H-50		102	1
API Spec 2W: steels for offshore constructions, thermomechanically rolled	2W-50		A	3
	2W-60		A	3
API Spec 2Y: steels for offshore constructions, quenched and tempered	2Y-50		A	4
	2Y-60		A	4
Offshore-steels in accordance with Dillinger material data sheet	S500G1+M/G2+M	10	100	3
	DI-RACK		A	4



### Steels for pipeline construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
API Spec 5L: Steels for welded large diameter pipelines, plus Class PSL 1 and PSL 2	5L-A-PSL1		25	1
	5L-B-PSL1		25	1
	5L-X42-PSL1		25	1
	5L-X46-PSL1		25	1
	5L-X52-PSL1		A	1
	5L-X56-PSL1		A	2
	5L-X60-PSL1		A	2
	5L-X65-PSL1		A	2
	5L-X70-PSL1		A	2
	5L-BR-PSL2	7	25	1
	5L-BN-PSL2		25	1
	5L-X42R-PSL2	7	25	1
	5L-X42N-PSL2		25	1
	5L-X46N-PSL2		25	1
	5L-X52N-PSL2		A	1
	5L-BM-PSL2		A	2
	5L-X42M-PSL2		A	2
	5L-X46M-PSL2		A	2
	5L-X52M-PSL2		A	2
	5L-X56M-PSL2		A	2
	5L-X60M-PSL2		A	2
	5L-X65M-PSL2		A	2
	5L-X70M-PSL2		A	2
	5L-X80M-PSL2		A	2
	5L-X90M-PSL2		A	2
	5L-X100M-PSL2		A	2
	5L-X120M-PSL2		A	2
	5L-BQ-PSL2		A	4
	5L-X42Q-PSL2		A	4
	5L-X46Q-PSL2		A	4
5L-X52Q-PSL2		A	4	

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# GRADES UNDER CURRENT STANDARDS

## Steels for pipeline construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
API Spec 5L: Steels for welded large diameter pipelines, plus Class PSL 1 and PSL 2	5L-X56Q-PSL2		A	4
	5L-X60Q-PSL2		A	4
	5L-X65Q-PSL2		A	4
	5L-X70Q-PSL2		A	4
	5L-X80Q-PSL2		A	4
	5L-X90Q-PSL2		A	4
	5L-X100Q-PSL2		A	4
	5L-BNS-PSL2		A	1
	5L-X42NS-PSL2		A	1
	5L-X46NS-PSL2		A	1
	5L-X52NS-PSL2		A	1
	5L-BMS-PSL2		A	2
	5L-X42MS-PSL2		A	2
	5L-X46MS-PSL2		A	2
	5L-X52MS-PSL2		A	2
	5L-X56MS-PSL2		A	2
	5L-X60MS-PSL2		A	2
	5L-X65MS-PSL2		A	2
	5L-X70MS-PSL2		A	2
	5L-BQS-PSL2		A	4
	5L-X42QS-PSL2		A	4
	5L-X46QS-PSL2		A	4
	5L-X52QS-PSL2		A	4
	5L-X56QS-PSL2		A	4
	5L-X60QS-PSL2		A	4
	5L-X65QS-PSL2		A	4
	5L-X70QS-PSL2		A	4
	5L-X60MO-PSL2		A	2
	5L-X65MO-PSL2		A	2
	5L-X70MO-PSL2		A	2
5L-X80MO-PSL2		A	2	
5L-X60QO-PSL2		A	4	
5L-X65QO-PSL2		A	4	
5L-X70QO-PSL2		A	4	
5L-X80QO-PSL2		A	4	

## Steels for pipeline construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
ISO 3183: Steels for welded large diameter pipelines, plus Class PSL 1 und PSL 2	L210-PSL1		25	1
	L245-PSL1		25	1
	L290-PSL1		25	1
	L320-PSL1		25	1
	L360-PSL1		A	1
	L390-PSL1		A	2
	L415-PSL1		A	2
	L450-PSL1		A	2
	L485-PSL1		A	2
	L245R-PSL2	7	25	1
	L245N-PSL2		25	1
	L290R-PSL2	7	25	1
	L290N-PSL2		25	1
	L320N-PSL2		25	1
	L360N-PSL2		A	1
	L245M-PSL2		A	2
	L290M-PSL2		A	2
	L320M-PSL2		A	2
	L360M-PSL2		A	2
	L390M-PSL2		A	2
	L415M-PSL2		A	2
	L450M-PSL2		A	2
	L485M-PSL2		A	2
	L555M-PSL2		A	2
	L625M-PSL2		A	2
	L690M-PSL2		A	2
	L830M-PSL2		A	2
	L245Q-PSL2		A	4
	L290Q-PSL2		A	4
	L320Q-PSL2		A	4
	L360Q-PSL2		A	4
	L390Q-PSL2		A	4
	L415Q-PSL2		A	4
	L450Q-PSL2		A	4
	L485Q-PSL2		A	4
	L555Q-PSL2		A	4
	L625Q-PSL2		A	4
	L690Q-PSL2		A	4
	L245NS-PSL2		A	1

A Please ask for max. plate thickness available case by case

B The available plate dimensions for steels according to this Dillinger Material Data Sheet or specification are advised upon special request

# GRADES UNDER CURRENT STANDARDS

## Steels for pipeline construction

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
ISO 3183: Steels for welded large diameter pipelines, plus Class PSL 1 und PSL 2	L290NS-PSL2		A	1
	L320NS-PSL2		A	1
	L360NS-PSL2		A	1
	L245MS-PSL2		A	2
	L290MS-PSL2		A	2
	L320MS-PSL2		A	2
	L360MS-PSL2		A	2
	L390MS-PSL2		A	2
	L415MS-PSL2		A	2
	L450MS-PSL2		A	2
	L485MS-PSL2		A	2
	L245QS-PSL2		A	4
	L290QS-PSL2		A	4
	L320QS-PSL2		A	4
	L360QS-PSL2		A	4
	L390QS-PSL2		A	4
	L415QS-PSL2		A	4
	L450QS-PSL2		A	4
	L485QS-PSL2		A	4
	L415MO-PSL2		A	2
	L450MO-PSL2		A	2
	L485MO-PSL2		A	2
	L555MO-PSL2		A	2
	L415QO-PSL2		A	4
	L450QO-PSL2		A	4
	L485QO-PSL2		A	4
	L555QO-PSL2		A	4
	L245ME-PSL2		A	2
	L360ME-PSL2		A	2
	L415ME-PSL2		A	2
	L450ME-PSL2		A	2
	L485ME-PSL2		A	2
DNV-OS-F101: Steels for welded large diameter pipelines	SAWL245		A	1
	SAWL290		A	1
	SAWL320		A	1
	SAWL360		A	2
	SAWL390		A	2
	SAWL415		A	2
	SAWL450		A	2
	SAWL485		A	2
SAWL555		A	2	

#### Steels for safety and security applications in accordance with Dillinger material data sheet

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
	DIPRO 55 X	6	A	B
	DISAFE 100	12	19	2
	DIFENDER 400	6	A	B
	DIFENDER 450	6	A	B
	DIFENDER 500	6	A	B

#### Mechanical-engineering steels in accordance with Dillinger material data sheet

Standard	Steel grades	Min. plate thickness	Max. plate thickness	Dimension table
	DI-GEAR	120	220	4









2701 2800	2801 2900	2901 3000	3001 3100	3101 3200	3201 3300	3301 3400	3401 3500	3501 3600	3601 3700	3701 3800	3801 3900	3901 4000	4001 4100	4101 4200	4201 4300	4301 4400	4401 4500	4501 4600	4601 4650	from to	
																				> <=	
																				7 8	8 9
25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	21,0	21,0	21,0	19,0	17,0								9 10	10 12
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	18,0	24,0	24,0	24,0		10 12	12 15
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	12 15	15 20
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	20 25	25 30
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	26,7	26,0	24,5	24,1	25 30	30 35
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	22,7	22,2	20,6	20,3	35 40	40 45
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	19,6	19,2	17,6	17,4	45 50	50 55
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	17,3	16,9	15,4	14,7	55 60	60 65
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	27,3	26,7	26,0	25,4	65 70	70 75
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	27,5	26,7	26,0	25,4	75 80	80 85
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	25,1	24,4	23,8	23,2	85 90	90 95
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	23,1	22,5	21,9	21,3	95 100	100 105
25,0	25,0	25,0	24,8	24,0	23,3	22,6	22,0	21,4	20,8	20,2	19,7	19,2	18,7	18,3	17,9	10,6	10,3	9,5	9,4	105 110	110 115
25,0	25,0	24,4	23,1	22,4	21,7	21,1	20,5	19,9	19,4	18,8	18,3	17,9	17,4	17,0	16,6	9,7	9,5	8,8	8,6	115 120	120 125
24,4	23,6	22,8	21,6	20,9	20,3	19,7	19,1	18,6	18,1	17,6	17,1	16,7	16,3	15,9	15,5	9,0	8,8	8,1	7,9	125 130	130 135
23,0	22,2	21,4	20,3	19,6	19,0	18,5	17,9	17,4	17,0	16,5	16,1	15,7	15,3	14,9	14,5	8,4	8,1	7,5	7,4	135 140	140 145
21,6	20,9	20,2	19,1	18,5	17,9	17,4	16,9	16,4	16,0	15,5	15,1	14,7	14,4	14,0	13,7	7,7	7,5	7,0	6,9	145 150	150
20,4	19,7	19,1	18,0	17,5	16,9	16,4	16,0	15,5	15,1	14,7	14,3	13,9	13,6	13,2	12,9	7,3	7,1	6,5	6,4		
19,4	18,7	18,1	17,1	16,6	16,0	15,6	15,1	14,7	14,3	13,9	13,5	13,2	12,8	12,5	12,2	6,9	6,7	6,1	6,0		
18,4	17,8	17,2	16,2	15,7	15,2	14,8	14,3	13,9	13,6	13,2	12,8	12,5	12,2	11,9	11,6					100 105	105 110
17,5	16,9	16,3	15,5	15,0	14,5	14,1	13,7	13,3	12,9	12,5	12,2	11,9	11,6	11,3	11,0					110 115	115 120
16,7	16,1	15,6	14,7	14,3	13,8	13,4	13,0	12,6	12,3	12,0	11,6	11,3	11,0	10,8	10,5					120 125	125 130
16,0	15,4	14,9	14,1	13,6	13,2	12,8	12,4	12,1	11,7	11,4	11,1	10,8	10,5	10,3	10,0					130 135	135 140
15,3	14,8	14,3	13,5	13,1	12,6	12,3	11,9	11,6	11,2	10,9	10,6	10,3	10,1	9,8	9,6					140 145	145 150
14,7	14,2	13,7	12,9	12,5	12,1	11,7	11,4	11,1	10,8	10,5	10,2	9,9	9,6	9,4	9,2						
14,1	13,6	13,1	12,4	12,0	11,6	11,3	10,9	10,6	10,3	10,0	9,8	9,5	9,2	9,0	8,8						
13,6	13,1	12,6	11,9	11,5	11,2	10,8	10,5	10,2	9,9	9,6	9,4	9,1	8,9	8,7	8,4						
13,1	12,6	12,2	11,5	11,1	10,8	10,4	10,1	9,8	9,5	9,3	9,0	8,8	8,5	8,3	8,1						
12,6	12,1	11,7	11,1	10,7	10,4	10,0	9,7	9,5	9,2	8,9	8,7	8,4	8,2	8,0	7,8						

Note: The following conditions apply to all orders:

- Only plate lengths of  $\geq 2$  m can be supplied
- Please enquire for plate weights of  $> 35$  t and plate lengths of  $> 25$  m
- Facilities for transportation (rail, water, road) must in all cases be verified prior to orders for plates of  $> 18$  m in length and/or  $> 4,200$  mm in width.
- Plate dimensions outside of those stated in the standard supply range are possible in many cases.

Please also note when ordering grades from this table:

- Items marked with \*: Only an even number of plates can be ordered in these maximum dimensions. An odd number of plates is possible in many cases for shorter plate lengths. Please enquire with your contact at Dillinger.
- The minimum supplyable item weight for plate thicknesses of  $\leq 40$  mm is 6 t, and 10 t in the case of plate thicknesses of  $> 40$  mm.



# TABLE 3

maximum available plate lengths in meters relative to plate thickness and plate width (mm)

from to	800 900	901 1000	1001 1100	1101 1200	1201 1300	1301 1400	1401 1500	1501 1600	1601 1700	1701 1800	1801 1900	1901 1999	2000 2100	2101 2200	2201 2300	2301 2400	2401 2500	2501 2600	2601 2700
>	<=																		
7	8																		
8	9	25,0*	25,0*	25,0*	25,0*	25,0*	25,0*	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0
9	10	25,0*	25,0*	25,0*	25,0*	25,0*	25,0*	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0
10	12	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
12	15	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
15	20	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
20	25	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
25	30	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
30	35	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
35	40	27,3*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
40	45	24,2*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
45	50	21,9*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
50	55	19,6*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	27,5*	26,0*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
55	60	17,9*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	28,0*	26,6*	25,1*	23,8*	28,0	28,0	28,0	28,0	28,0	28,0	28,0
60	65	16,5*	28,0*	28,0*	28,0*	28,0*	28,0*	26,0*	24,5*	23,1*	21,9*	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0
65	70	15,2*	25,0*	25,0*	25,0*	25,0*	25,0*	24,0*	22,6*	21,4*	20,2*	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0
70	75	14,1*	25,0*	25,0*	25,0*	25,0*	24,4*	22,4*	21,1*	19,9*	18,8*	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0
75	80	13,2*	25,0*	25,0*	25,0*	24,4*	22,8*	20,9*	19,7*	18,6*	17,6*	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0
80	85	12,3*	25,0*	25,0*	24,7*	23,0*	21,4*	19,6*	18,5*	17,4*	16,5*	25,0	25,0	25,0	25,0	25,0	25,0	24,7	23,8
85	90	11,6*	25,0*	25,0*	23,3*	21,6*	20,2*	18,5*	17,4*	16,4*	15,5*	25,0	25,0	25,0	25,0	25,0	24,2	23,3	22,4
90	95	10,9*	25,0*	25,0*	23,9*	22,0*	20,4*	17,5*	16,4*	15,5*	14,7*	25,0	25,0	25,0	24,9	23,9	22,9	22,0	21,2
95	100	10,3*	25,0*	24,7*	22,6*	20,9*	19,4*	16,6*	15,6*	14,7*	13,9*	25,0	25,0	24,7	23,6	22,6	21,7	20,9	20,1

Structural steel  
Shipbuilding  
Pressure-vessel  
Case-hardening, quenching & tempering  
Plastics moulds  
Wear-resistant  
Offshore  
Pipeline  
Security & Safety  
Mechanical engineering  
Table of dimensions

2701 2800	2801 2900	2901 3000	3001 3100	3101 3200	3201 3300	3301 3400	3401 3500	3501 3600	3601 3700	3701 3800	3801 3900	3901 4000	4001 4100	4101 4200	4201 4300	4301 4400	4401 4500	4501 4600	4601 4650	from to	>	<=		
																					7	8		
25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	21,0	21,0	21,0	19,0	17,0									8	9		
25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	21,0	21,0	21,0	21,0	19,0	17,0									9	10	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	18,0	24,0	24,0	24,0				10	12	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0		12	15	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0		15	20	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0		20	25	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	26,7	26,0	24,5	24,1			25	30	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	22,7	22,2	20,6	20,3			30	35	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	19,6	19,2	17,6	17,4			35	40	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	17,3	16,9	15,4	14,7			40	45	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	27,3	26,7	26,0	25,4	15,4	15,0	13,9	13,7			45	50	
28,0	28,0	28,0	28,0	28,0	28,0	28,0	28,0	27,5	26,7	26,0	25,4	24,7	24,1	23,6	23,0	13,9	16,3	12,5	12,3			50	55	
28,0	28,0	28,0	28,0	28,0	28,0	27,3	26,6	25,8	25,1	24,4	23,8	23,2	22,6	22,0	21,5	21,0	12,6	12,3	11,3	11,2			55	60
28,0	28,0	28,0	26,8	26,0	25,2	24,5	23,8	23,1	22,5	21,9	21,3	20,8	20,3	19,8	19,3	11,5	11,2	10,3	10,2			60	65	
25,0	25,0	25,0	24,8	24,0	23,3	22,6	22,0	21,4	20,8	20,2	19,7	19,2	18,7	18,3	17,9	10,6	10,3	9,5	9,4			65	70	
25,0	25,0	24,4	23,1	22,4	21,7	21,1	20,5	19,9	19,4	18,8	18,3	17,9	17,4	17,0	16,6	9,7	9,5	8,8	8,6			70	75	
24,4	23,6	22,8	21,6	20,9	20,3	19,7	19,1	18,6	18,1	17,6	17,1	16,7	16,3	15,9	15,5	9,0	8,8	8,1	7,9			75	80	
23,0	22,2	21,4	20,3	19,6	19,0	18,5	17,9	17,4	17,0	16,5	16,1	15,7	15,3	14,9								80	85	
21,6	20,9	20,2	19,1	18,5	17,9	17,4	16,9	16,4	16,0	15,5	15,1	14,7	14,4	14,0								85	90	
20,4	19,7	19,1	18,0	17,5	16,9	16,4	16,0	15,5	15,1	14,7	14,3	13,9	13,6	13,2								90	95	
19,4	18,7	18,1	17,1	16,6	16,0	15,6	15,1	14,7	14,3	13,9	13,5	13,2	12,8	12,5								95	100	

Note: The following conditions apply to all orders:

- Only plate lengths of  $\geq 2$  m can be supplied
- Please enquire for plate weights of  $> 35$  t and plate lengths of  $> 25$  m
- Facilities for transportation (rail, water, road) must in all cases be verified prior to orders for plates of  $> 18$  m in length and/or  $> 4,200$  mm in width.
- Plate dimensions outside of those stated in the standard supply range are possible in many cases.

Please also note when ordering grades from this table:

- Items marked with \*: Only an even number of plates can be ordered in these maximum dimensions. An odd number of plates is possible in many cases for shorter plate lengths. Please enquire with your contact at Dillinger.
- The minimum suppliable item weight for plate thicknesses of  $\leq 40$  mm is 6 t, and 10 t in the case of plate thicknesses of  $> 40$  mm.



2701 2800	2801 2900	2901 3000	3001 3100	3101 3200	3201 3300	3301 3400	3401 3500	3501 3600	3601 3700	3701 3800	3801 3900	3901 4000	4001 4100	4101 4200	4201 4300	4301 4400	4401 4500	from >	to <=	
																		5,9	6	
																			6	7
																			7	8
18,0	18,0	18,0	18,0	18,0															8	9
18,0	18,0	18,0	18,0	18,0															9	10
18,0	18,0	18,0	18,0	18,0															10	12
18,0	18,0	18,0	18,0	18,0															12	15
18,0	18,0	18,0	18,0	18,0	18,0														15	20
18,0	18,0	18,0	18,0	18,0	18,0														20	25
18,0	18,0	18,0	18,0	18,0	18,0														25	30
18,0	18,0	18,0	18,0	18,0	18,0														30	35
18,0	18,0	18,0	18,0	18,0	18,0														35	40
18,0	18,0	18,0	18,0	18,0	18,0														40	45
18,0	18,0	18,0	18,0	18,0	18,0														45	50
18,0	18,0	18,0	18,0	18,0	18,0	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		50	55
18,0	18,0	18,0	18,0	18,0	18,0	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		55	60
18,0	18,0	18,0	18,0	18,0	18,0	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		60	65
18,0	18,0	18,0	18,0	17,9	17,4	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		65	70
18,0	18,0	17,8	17,3	16,7	16,2	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		70	75
17,9	17,3	16,7	16,2	15,7	15,2	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		75	80
16,9	16,3	15,7	15,2	14,7	14,3	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		80	85
15,9	15,4	14,9	14,4	13,9	13,5	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8		85	90
15,1	14,6	14,1	13,6	13,2	12,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,5			90	95
14,4	13,9	13,4	13,0	12,6	12,2	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,7	11,4	11,1	10,9			95	100
13,7	13,2	12,8	12,3	12,0	11,8	11,8	11,8	11,8	11,8	11,7	11,4		11,1	10,8	10,6	10,3			100	105
13,1	12,6	12,2	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,5	11,2	10,9	10,6	10,3	10,0	9,8			105	110
12,5	12,1	11,8	11,8	11,8	11,8	11,8	11,8	11,8	11,6	11,2	10,9	10,6	10,3	10,1	9,8	9,6	9,3		110	115
12,0	11,8	11,8	11,8	11,8	11,8	11,7	11,4		11,0	10,7	10,4	10,1	9,9	9,6	9,4	9,1	8,9		115	120
11,8	11,8	11,8	11,8	11,5	11,1	10,8	10,4		10,1	9,8	9,5	9,3	9,0	8,8	8,6	8,3	8,1		120	130
11,8	11,8	11,6	10,9	10,6	10,2	9,9	9,6		9,3	9,0	8,8	8,5	8,3	8,1	7,9	7,7	7,5		130	140
11,6	11,2	10,7	10,1	9,8	9,5	9,2	8,9		8,6	8,4	8,1	7,9	7,7	7,5	7,3	7,1	6,9		140	150
10,8	10,4	10,0	9,4	9,1	8,8	8,5	8,3		8,0	7,8	7,6	7,3	7,1	6,9	6,8	6,6	6,4		150	160
10,1	9,7	9,4	8,8	8,5	8,2	8,0	7,7		7,5	7,3	7,1	6,8	6,7	6,5	6,3	6,1	6,0		160	170
9,5	9,1	8,8	8,3	8,0	7,7	7,5	7,2		7,0	6,8	6,6	6,4	6,2	6,0	5,9				170	180
8,9	8,6	8,3	7,8	7,5	7,3	7,0	6,8		6,6	6,4	6,2	6,0							180	190
8,4	8,1	7,8	7,3	7,1	6,8	6,6	6,4		6,2	6,0	5,8								190	200
8,0	7,7	7,4	6,9	6,7	6,5	6,2	6,0		5,9										200	210
7,6	7,3	7,0	6,6	6,3	6,1	5,9													210	220
7,2	6,9	6,6	6,2	6,0	5,8														220	230
6,7	6,5	6,2	6,0																230	240
6,4	6,2	5,9																	240	250
6,1	5,9																		250	260
5,9																			260	270
																			270	280
																			280	290

Note: The following conditions apply to all orders:

- Only plate lengths of  $\geq 2$  m can be supplied
- Minimum item weight is 4.5 t
- Please enquire for plate weights of  $> 35$  t and plate lengths of  $> 25$  m
- Facilities for transportation (rail, water, road) must in all cases be verified prior to orders for plates of  $> 18$  m in length and/or  $> 4,200$  mm in width.
- Plate dimensions outside of those stated in the standard supply range are possible in many cases.

Please also note when ordering grades from this table:

- Items marked with \*: Only an even number of plates can be ordered in these maximum dimensions. An odd number of plates is possible in many cases for shorter plate lengths. Please enquire with your contact at Dillinger.
- Plates ordered individually must have a length of  $> 3,000$  mm. Not less than two plates of the same thickness and the same width must be ordered in the case of individual plates of  $< 3,000$  mm in length.
- Plates of thicknesses of  $> 60$  mm must have a length-to-width ratio of  $\geq 1.5$ . Not less than two plates of the same thickness and the same width must be ordered in the case of smaller length-to-width ratios.
- The maximum permissible minus tolerance is  $-0.4$  mm in the case of plate thicknesses of  $< 8$  mm.
- Further restrictions may also apply, depending on the particular grade of steel required.





Dillinger supplies heavy-plate products precisely tailored to your needs—in exactly the right grade of steel, and perfectly prepared for working and welding.

# CONTACTS

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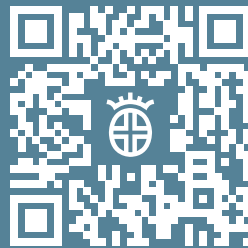
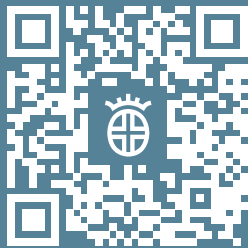
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[www.dillinger.de/kontakt](http://www.dillinger.de/kontakt)



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» *We'll help you to achieve your aims—  
whatever they are. Just contact us.* «

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# PUBLICATIONS

We would be pleased to supply you with more detailed information on the Dillinger grades and branded products highlighted on page 10—just contact your Sales/Marketing partner, or the Marketing & Technical Support department at Dillinger directly. Many of the publications listed below are, of course, also available on the Internet for download.

## **Information on Dillinger special steels**

DILLIDUR	DI-MC
DILLIMAX	DIWETEN
DI-RACK	D-TECT
DIWA	DICUT
DICREST	DIMO
DIROS	DIPRO
DILLINAL	DICLADUR
DIFENDER	DIGEAR
DI-TANK	DIWIND

**Imprint**

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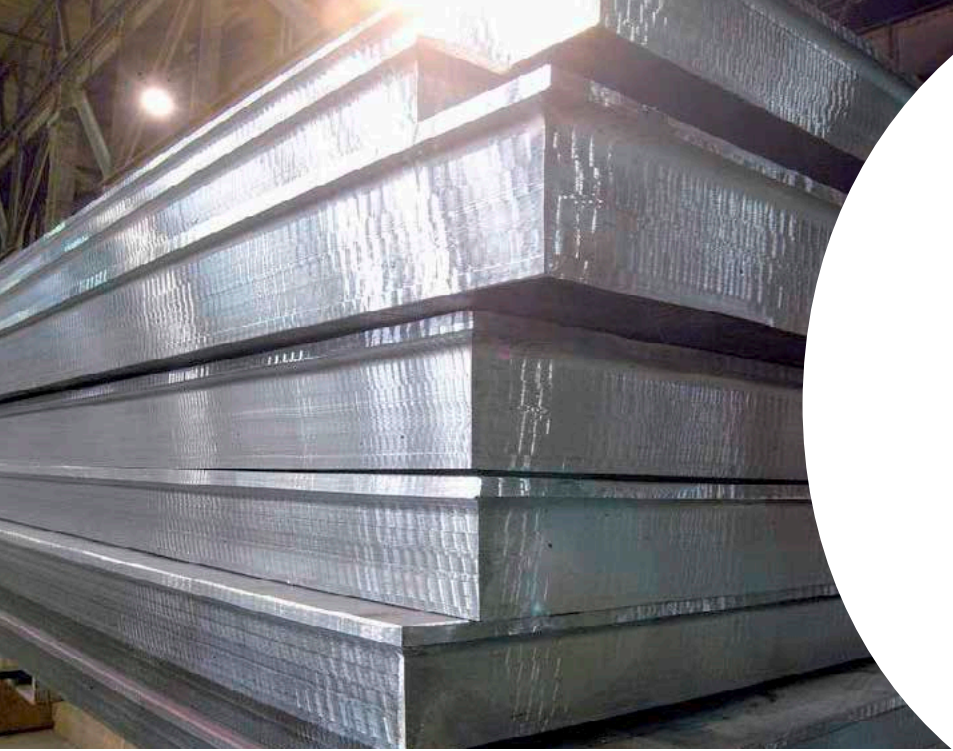
[www.dillinger.de](http://www.dillinger.de)

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Status: 09/2018





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