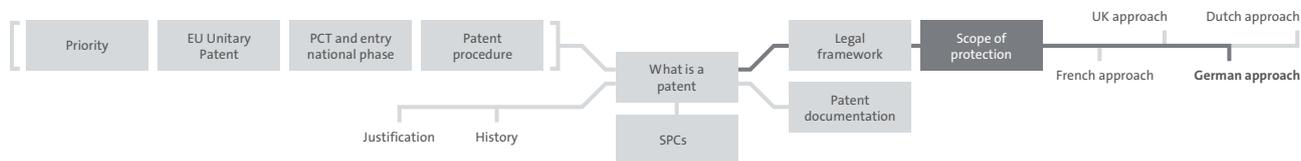


## The German approach (Supplementary reading)



### Claim construction

According to both **Article 69** of the European Patent Convention (EPC) and **Section 14** of the *Patentgesetz* (German Patent Act) (PatG), the scope of protection conferred by a patent is determined primarily by the claims. The description and drawings have to be considered when construing the claims, but they can never extend or restrict the scope of protection (on their own). This means two things:

- A technical teaching is not protected if it can only be found in the description or drawings but not in the properly construed claim.
- The scope of protection as derived from the claims is not restricted by a narrower description or a particular drawing. In particular, the scope of protection is not restricted to the examples or to a preferred embodiment as described in the patent.

There are many ways in which the description and drawings can be relevant when it comes to construing the claims. First, the general assumption is that the claims, description and drawings form a unit which is consistent in itself. Therefore, whenever the claim language permits, it would be preferable to construe it in such a way that all those embodiments which are described as being “according to the invention” are indeed covered by the claims. The *Bundesgerichtshof* (German Federal Court of Justice, BGH) has said that it is not completely impossible for claims to be (or become, in invalidity proceedings) restricted in such a way that they no longer cover any of the examples given in the description.

Claims are construed in the way that a notional person skilled in the art would understand them. Individual terms will often simply have an “ordinary” meaning as generally known to a person skilled in the field of technology concerned, or as can be found in a dictionary. But if the patent provides or requires a specific definition, this will overrule the standard definition.

#### Relevance of claims, description and drawings

The claims are what matters when it comes to determining the scope of protection. The description and drawings are helpful in construing the claim language, but on their own they neither extend nor restrict the scope of protection as derived from the properly construed claims.

BGH, GRUR 2015, 159-167 – “Zugriffsrechte”

In a conflict between extrinsic evidence (definition given in a standard dictionary) and intrinsic definition (definition in the patent itself) the intrinsic definition prevails

Such specific or “unconventional” definitions can result from an explicit definition in the claims or description. The BGH has made it clear that patentees are allowed to act as “their own lexicographer”.

**Patentees can be their own lexicographer**  
BGH, (1999) 30 IIC 932 – X ZR 85/96  
“*Spannschraube*”

Even where there is no explicit definition in the patent, claim terms can have a meaning that deviates from the “ordinary” meaning or from the meaning that the same term has in the prior art. The person skilled in the art will prefer to give claim terms a meaning such that the technical function of each term is properly reflected, including within the context of the other claim terms. This is commonly referred to as “purposive construction” or “functional claim interpretation”. However, in respect of features which are spatially and physically defined in the claims, purposive construction does not allow such features to be reduced to their technical function. They cannot be freed from any spatial or physical definitions given in the claims. Otherwise, the boundaries between literal and equivalent infringement (see below) would become blurred.

**Purposive construction or functional claim interpretation**  
BGH, (1999) 30 IIC 932 – X ZR 85/96  
“*Spannschraube*”

Another aspect in claim construction is that certain terms may be associated with a specific meaning that is unique to patent publications. For example, a claim using “comprising A + B” language should generally be construed as being open to the addition of further constituents which are not expressly listed (that is, the expressly listed constituents A and B do not have to add up to 100%), whereas a claim using “consisting of A + B” language should generally be construed as giving an exhaustive list of constituents (that is, the expressly listed constituents A and B should add up to 100%).

**Particular meaning of terms in patent matters**  
Case Law of the Boards of Appeal of the European Patent Office, 7th ed. 2013, at II.A.6.2 (p. 267);  
BGH, GRUR (2011), 1109 – X ZR 75/08  
“*Reifenabdichtmittel*”

Under German law, in a claim in two-part format, it does not matter whether a particular term is located in the preamble or in the characterising portion.

BGH, GRUR (2011), 129 – Xa ZR 149/07  
“*Fentanyl-TTS*”

For “medical indication” inventions prior to the EPC 2000 revision, the EPO required the Swiss-type claim format (“use of compound X for the manufacture of a medicament for the treatment of B”). In German law, the scope of such Swiss-type claims is mostly seen as identical to that of German-type use claims (“use of compound X for the treatment of B”), the claim in each case covering both the obvious preparation or “arrangement” of a medicament for the protected indication (for example by adding to a package of pills an information leaflet giving the protected indication), and the sale of a medicament which has obviously been prepared for the protected indication. It has not yet been decided whether the actual use of a medicament, e.g. by a doctor treating a patient, can infringe a Swiss-type claim, but due to the clear wording of such claims (“for the manufacture of a medicament”) it appears doubtful that use by a doctor would constitute infringement. The general assumption in German case law is, however, that doctors are not exempted *per se* from infringement.

**Swiss-type claims**

OLG München (Munich Higher Regional Court), Mitt. (1996), 312 – 6 U 3108/95;  
LG Hamburg (District Court) Mitt. (1996), 315 – 315 O 224/95

Numerical figures and dimensions given in patent claims are usually assumed to be precise, thereby excluding differing embodiments. Yet they are also basically open to construction, for example to allow for normal manufacturing tolerances or for protection under the doctrine of equivalence (see below).

**Numerical figures and dimensions**  
BGH, GRUR (2002), 511 – X ZR 43/01  
*“Kunststoffrohrteil”*

Guidance as to how to construe claims can also be taken from the dependent sub-claims. Since sub-claims are directed to specific variants of the respective main claim, the main claim will have to be construed so as to cover these specific variants. But because of its more general nature, the main claim will preferably cover further variants, too. Where a sub-claim refers to several previous claims (for example, where claim 4 refers to “a device in accordance with claims 1 to 3”), it will depend on the circumstances (including the description and drawings) whether the sub-claim requires each and every feature of all the cited claims to be realised. It is also possible that the sub-claim may require only that the features of one or more of the cited claims be realised (in the above example, for instance, claim 4 may well require the realisation of all the features of claim 1, but not the additional features of claims 2 or 3).

**Relevance of sub-claims**

BGH, GRUR (2014), 650 – X ZR 31/11  
*“Reifendemontiermaschine”*

The protection conferred by a product patent usually extends to every embodiment which realises all the features of the claim. The purpose for which the embodiment may be intended or used is usually irrelevant for a finding of infringement of a product patent.

**Types of patent claims**

The protection conferred by use patents extends to the claimed use, and usually also to every embodiment which is obviously prepared or “arranged” for the protected use. Depending on the circumstances, such obvious arrangement may be inferred from the product design, a product manual or package leaflet with which the embodiment is sold.

BGH, GRUR (1990), 505 – X ZR 29/88  
*“Geschlitzte Abdeckfolie”*

The protection conferred by process patents extends to carrying out the actual process and, under **Section 9, sentence 2, number 3 PatG**, also to every product which the protected process directly yields. Whether a process patent protects a certain sequence of the claimed process steps only (the sequence as in the wording of the claim), or other practical sequences too, depends on the circumstances.

BGH – X ZR 105/06

Supplementary protection is awarded in each of the above categories by the rules of contributory infringement under **Section 10 PatG**, which are not discussed here.

The priority date of the patent is relevant to any construction of the claims, but knowledge which may influence the construction of certain claim terms but which did not become accessible to the person skilled in the art until after the priority date is not.

**Relevance of priority date**  
BGH, (2002) 33 IIC 873 – X ZR 168/00  
*“Schneidmesser I”*

The scope of protection can extend beyond the explicit disclosure of a patent. This means that it is possible for embodiments to be protected but not directly disclosed. This is a consequence of the fact that a patent needs to disclose only one of several ways to carry out an invention, and also of the fact that equivalents of the explicitly disclosed teaching are protected under German law (see below). A common example of protection going beyond the explicit disclosure is a claim directed to a group of chemical substances by way of a Markush formula with several variables. However, by way of exception, the BGH held that a patent may be invalid under **Article 138(1)(b) EPC** due to lack of enabling disclosure if the claims are overly generalised and exceed the inventive contribution to the art.

Scope of protection can go beyond explicit disclosure

BGH, GRUR (2010), 414 – Xa ZR 100/05  
“*Thermoplastische Zusammensetzung*”

Claim construction cannot be governed by the prior art. So the mere existence of the prior art has no influence on the way a claim is construed. However, the description of the invention is relevant if it discusses the prior art. It may be that the description refers to a certain piece of prior art as a standard solution and adopts one or more technical features of this prior art for the claimed invention. If this is the case, then the construction of the respective terms may be influenced by the technical features of this adopted prior art. But it may also be that a patent refers to a certain piece of the prior art only as background, with which the invention is contrasted, without adopting any of the prior art features for the claimed invention.

The prior art itself is irrelevant to claim construction, but the description of the invention is relevant if it discusses the prior art

When construing claims, no account may be taken of the personal intentions of the inventor. Hence, it makes no sense to let the inventor testify as to what he wanted to achieve with his invention. In order to ensure legal certainty for third parties, claim construction must be governed by objective criteria. The BGH has said that the actual aims of the inventor do not matter, but that the technical effect achieved by the invention does. The problem solved by an invention must be inferred from what the claimed teaching objectively achieves.

Claim construction is objective; the personal intentions of the inventor do not matter

BGH, GRUR (2010), 602 – Xa ZR 36/08  
“*Gelenkanordnung*”

Insofar as certain aims are expressed in the description, such aims can be relevant for claim construction. Any aims stated in the description can help in identifying the problem which is objectively addressed by the invention. Furthermore, if the description discusses certain disadvantages of the prior art and says that these disadvantages are remedied by the invention, this can influence the claim construction. Preferably, the claims should be construed in such a way that the criticised aspects are indeed remedied.

BGH, GRUR (2012), 803 – X ZR 98/09  
“*Calcipotriol-Monohydrat*”

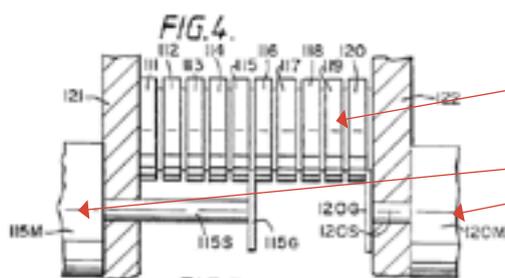
An example from German case law may help illustrate the interplay between the purposive construction of claims, the description of the prior art and the objective achievement of the claimed teaching. EP 2 032 364 B1 claims a numbering device for carrying out typographic numbering in sheet-fed or web-fed numbering presses. Claim 1 reads:

Example from case law on purposive construction of claims  
 OLG Düsseldorf – I-2 U 85/12;  
 Düsseldorf LG – 4b O 97/12;  
 Mannheim LG – 7 O 162/12; all these decisions assumed non-infringement, in preliminary injunction proceedings and in an action on the merits respectively

1. A numbering device (1) for carrying out numbering in sheet-fed or web-fed numbering presses, said numbering device (1) comprising a numbering unit (6) with rotatable numbering wheels (7) carrying alpha-numerical symbols thereon, which numbering wheels (7) are disposed next to each other and rotate about a common rotation axis, said numbering device further comprising electro-mechanical actuation means for setting the position of said numbering wheels (7),  
 said electro-mechanical actuation means comprising a plurality of independent driving means (15, 18-23; 23\*) for actuating a corresponding plurality of said numbering wheels (7),  
 and wherein each independent driving means (15, 18-23; 23\*) at least comprises an electric motor (15) driving the associated numbering wheel through a gearing (16, 19-23; 23\*), characterized in that said electro-mechanical actuation means are entirely located within said numbering device (1) and are mechanically autonomous.

As the person skilled in the art of developing devices for sheet-fed or web-fed printing knows, it is advantageous for a numbering device to have a small size, since the prints which are to be numbered may have a small size and are usually located in rows and columns, each directly adjacent to the next. However, claim 1 does not explicitly refer to a particular size or to particular dimensions of the numbering device. It only requires the actuation means (motors and gearing) to be “entirely located within” the numbering device. This could be construed in two ways. Firstly, the expression “entirely located within” could simply require the actuation means to be surrounded by a casing, regardless of the size and dimensions of the casing and the overall device. Alternatively, “entirely located within” could require a certain allocation of actuation means in relation to other necessary elements of a numbering device, thereby indirectly addressing the size of the overall device.

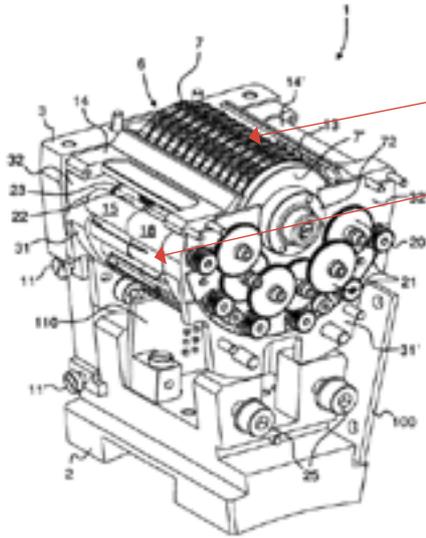
The German courts thought that the second alternative was correct. Their opinion was based firstly on the discussion of the prior art in [0018] of the description of the patent in suit. There the prior art according to US 4,843,959 is described as disadvantageous, because the actuation means are located on both sides of the numbering wheels, thereby “preventing side-by-side use of multiple numbering devices or at least greatly restricting the ability to dispose multiple numbering devices one next to the other in a compact manner”.



Prior art  
 Numbering wheels

Prior art  
 Actuation means (protruding on the sides of the numbering wheels, making the device larger in size)

Secondly, it was based on the preferred example of the patent in suit, where no actuation means protruded further along the axis of the numbering wheels than the numbering wheels themselves, including their support.



**Preferred example**  
Numbering wheels

**Preferred example**  
Actuation means (not protruding on the sides of the numbering wheels)

The courts assumed that, based on a purposive claim construction, the actuation means would not be “entirely located within” a numbering device as required by claim 1 if they protruded further along the axis of the numbering wheels than the numbering wheels themselves, including their support. Such a narrow scope was required because the claimed embodiments would otherwise have the same disadvantage as the prior art criticised at [0018] of the patent in suit.

Accordingly, the following contested embodiment was found not to infringe, because actuation means partly protruded further along the axis of the numbering wheels than the numbering wheels themselves, including their support, thereby increasing the overall size of the device.



**Contested embodiment**  
Numbering wheels

**Contested embodiment**  
Actuation means (partly protruding on the sides of the numbering wheels)

Turning once again to general German case law, it is accepted that where a patent claim specifies a certain effect, purpose or function, such specification can have different implications. Depending on the circumstances, it may mean that the claimed embodiment not only has to comply with any spatial or physical definition contained in the claim language, but must also be suitable for achieving the relevant effect. Such specification of an effect can indirectly require certain spatial or other properties of the claimed teaching that do not result from other claim terms.

It is important to note that it is usually sufficient for the user to be *enabled* to achieve the relevant effect. Where an embodiment can be used in several ways, it does not matter whether the user actually achieves the relevant effect, or whether a product manual even discourages him from achieving the relevant effect, as long as he could achieve this effect. It is also possible for the spatial and physical terms of a claim to be sufficient to achieve the intended effect, in which case any additional specification of a certain effect in the claim language may be irrelevant. In this context, the BGH has stated that specifications of a certain effect, purpose or function usually do not limit the scope of protection of a product claim.

The German position is that there is generally no “file wrapper estoppel”. Since neither **Article 69 EPC** nor **Section 14 PatG** refers to the prosecution history, it may not be taken into consideration when construing patent claims.

The BGH recently held that the question of whether or not patent publications such as the officially published patent application or earlier versions of the patent (which have been amended for instance in opposition proceedings) might be relevant when it comes to construing the claims is still open. Differences between the content of earlier publications and the final patent might help in construing the claims of the final patent.

It is accepted that comments made by the applicant during prosecution regarding the understanding of certain terms can be of significance (but have no binding effect) for assessing the level of understanding of the person skilled in the art.

Where decisions in invalidity proceedings exist, the reasoning in these decisions may also be of significance regarding the way in which certain terms are understood by the person skilled in the art. Invalidity proceedings will have a binding effect on claim construction if the outcome of the proceedings was an amendment of the claims. The reasoning regarding the differences between the original and the amended version is as relevant to the construction of the amended claim version as any patent description.

#### Effects, purposes or functions specified in claims

BGH, GRUR (2009), 837 – Xa ZR 140/05 “*Bauschalungsstütze*”; GRUR (2006), 399 – X ZR 14/02 “*Rangierkatze*”; GRUR (2006), 923 – X ZR 105/04 “*Luftabscheider für Milchsammelanlage*”

BGH, GRUR (1991), 436 – X ZR 121/88 “*Befestigungsvorrichtung II*”

#### No file wrapper estoppel

BGH, (2011) 42 IIC 851 – X ZR 16/09 “*Okklusionsvorrichtung*”; X ZR 117/11 “*Polymerschaum*”

BGH, (1997), 3377 – X ZR 73/95 “*Weichvorrichtung II*”

#### Decisions in invalidity proceedings

BGH, GRUR (1998), 895 – X ZR 57/96 “*Regenbecken*”; GRUR (1979), 308 – X ZR 63/75 “*Auspuffkanal für Schaltgase*”

Although the construction of patent claims is performed from the perspective of the notional addressee, or person skilled in the art, it is a question of law for the court, not expert evidence. Evidence as to the meaning of technical terms may only be given within the context of the claims and specification.

Claim construction is a question of law  
BGH, GRUR (2007), 410 – X ZR 74/05  
“Kettenradanordnung I”

The scope of protection of a given patent must always be the same, irrespective of the context in which the patent is examined. In other words, the same rules for claim construction apply for infringement as they do for invalidity, which means that the scope of protection must be construed without regard to any allegedly infringing embodiment.

Same rules for claim construction apply for infringement and for invalidity issues  
BGH, GRUR (2009), 837 – Xa ZR 140/05  
“Bauschalungsstütze”

The basic rule that the scope of protection must be the same in both infringement and invalidity proceedings requires special attention in bifurcated systems such as Germany’s, where infringement and invalidity are tried before different courts. Under a bifurcated system patentees may be tempted to advocate contradicting claim constructions. This is the so-called “Angora cat” problem. When validity is challenged, the patentee says his patent is very small (and therefore hard to challenge with prior art). The analogy here is that of a cuddly cat with its fur wet or smoothed down. When the patentee goes on the attack, the cat’s fur bristles, and it doubles in size (making the patent hard for third parties or alleged infringers to circumvent). German law provides for the following safeguarding measures to “tame” the Angora cat:

Solving the “Angora cat” problem in a bifurcated system

- Based on the presumption of good faith, any limitation on the scope of protection also applies in infringement proceedings if the patentee has defended the validity of the patent in invalidity proceedings by declaring such limitation, and if the alleged infringer was party to these invalidity proceedings.
- Any party is free to cite the pleading regarding claim construction which the other party may have submitted before another court in the past. Any inconsistency between the submissions made by a party regarding claim construction can be considered by the court.
- The BGH is the final instance in Germany in both infringement and invalidity cases, where claim construction in the context of infringement and invalidity issues is “under one roof”.

BGH, GRUR (1993), 886 – X ZR 6/91  
“Weichvorrichtung I”; BGH (1997), 3377 – X ZR 73/95 “Weichvorrichtung II”

Under German law it is not admissible to dismiss an infringement action simply because the claims are found to be ambiguous. However, it is regarded as the responsibility of the patentee to clearly state in the patent claims what he seeks protection for. If ambiguities remain that cannot be resolved, the court is free to adopt a claim construction that is not in the patentee’s favour (in other words, to adopt a narrow construction of the claims, preserving the best possible freedom to operate for third parties).

Unclear patent claims  
BGH, GRUR (2002), 511 – X ZR 43/01  
“Kunststoffrohrteil”; BGH, GRUR (2009), 653 – X ZR 95/05 “Straßenbaumaschine”

Where a European patent is involved, German courts will consider decisions rendered by the EPO or by other national courts in parallel litigation relating to the same patent. The same applies to questions of law such as claim construction. Deviations from EPO or non-German decisions are reasoned.

Consideration of EPO decisions and parallel litigation in other European countries  
BGH, GRUR (2010), 950 – Xa ZB 10/09  
“Walzenformgebungsmaschine”; BGH,  
(2014), X ZB 1/13 “Sitzplatznummerierungs-  
einrichtung”

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## Literal infringement

A literal infringement is assumed if each and every claim feature is realised in a way that is identical to the – properly construed – meaning of the claim features.

It does not matter whether the teaching of the claim features is realised systematically or coincidentally.

As long as each and every claim feature is realised, infringement will not be excluded if certain features are added, or the desired technical effect is improved or made worse. Consequently, infringement is not excluded even if an addition to the contested embodiment is protected by a (more recent) patent.

Addition, improvement, worsening

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## The doctrine of equivalents

According to the German position, the scope of protection of a patent extends beyond literal infringement. Products/uses/processes will not be protected if they do not realise one or more claim features and if the technical function of the missing features is not fulfilled by other features. No claim feature may be treated as irrelevant. But under certain conditions, products/uses/processes can be protected even if one or more claim features are realised in a way which is modified but nevertheless still similar to the teaching of the patent claims. Such supplemental protection of “equivalents” is regarded as integral to the concept of providing the patentee with fair protection.

Infringements under the doctrine of equivalents are assessed using the following three-step test, which the BGH adopted in its “*Schneidmesser I*” judgment:

Three “*Schneidmesser*” questions  
BGH, (2002) 33 IIC 873 – X ZR 168/00  
“*Schneidmesser I*”; see also BGH judge  
Meier-Beck, (2005) 36 IIC 339

- First, does the contested product/use/process solve the technical problem addressed by the claimed invention by means which are modified vis-à-vis those of the claimed invention (otherwise there would be literal infringement), yet have the same technical effect?
- If so, would the person skilled in the art, based on their general knowledge and skills (that is, without inventive efforts), have been able to identify the means of the contested product/use/process as having the same technical effect?

- If so, are these considerations by the person skilled in the art geared toward the meaning of the patent claim in such a way that the person skilled in the art would consider the contested product/use/process as a technical solution equal to a literally infringing product/use/process?

If all three questions are answered in the affirmative, there is infringement under the doctrine of equivalents.

With respect to the third question, it used to be regarded as an argument in favour of an equivalent infringement if the modified features of a contested embodiment were mentioned in the description. But in two recent judgments, the BGH has held that the opposite is true. If the description discloses a number of ways in which a specific technical effect can be achieved, but only one of these ways is included in the patent claims, the use of one of the other (described) ways will not, as a rule, constitute an infringement under the doctrine of equivalents. The patentee is then assumed to have made a decision against claiming protection for variants which he knew (because he explicitly referred to them in the description), but which he did not explicitly claim. However, an infringement under the doctrine of equivalents is still possible if the specific effect of the modified features corresponds to the effect of the explicitly claimed features, and if the specific effect of the modified features differs just like the effect of the claimed features from those variants which are only described, but not contained, in the claims.

BGH, (2011) 42 IIC 851 – X ZR 16/09  
“Okklusionsvorrichtung”; GRUR (2012),  
45 – X ZR 69/10 “Diglycidverbindung”

These somewhat intricate rules have been applied by the lower-instance courts. If, for example, a patent explicitly claims one particular salt of an active pharmaceutical ingredient (e.g. pemetrexed dicalium), but does not describe or claim any other salt, then it also covers as an equivalent the obvious variant of another well-known salt which has the same specific effect (e.g. pemetrexed disodium).

Düsseldorf LG – 4b O 114/12

Even under the bifurcated German system, a specific invalidity defence exists against infringements under the doctrine of equivalents (but not against literal infringements). The contested product/use/process is exempted from infringement if the combination of its features was obvious from the prior art relevant for the patent in suit, so that a patent expressly claiming the invention with the modified means would not have been granted.

“Formstein” defence against equivalent infringement  
BGH, GRUR (1986), 803 – X ZR 28/85  
“Formstein”; GRUR (1999), 914 – X ZR 22/97  
“Kontaktfederblock”