



# Foreword



Labelling Solutions. Made by Stell – Comprehension. Safety. Orientation.



Dear Business Partner,

We are pleased that you are interested in our company and products. For more than 40 years, we have aimed to ensure that working environments are clear-cut and safe. With our high-quality materials and distinct industry knowledge in the fields of energy, chemicals and industry, we are ready to serve as your qualified partner.

The new catalogue offers a comprehensive product selection when it comes to plant labelling and safety identification. With this catalogue, we are providing you with a resource to help you get to know all our products while also facilitating your selection of the product that is most suitable for you.

We are also happy to develop customised solutions for your specific requirements. Our team of experts will help you with any questions you may have.

We look forward to working with you.

Sincerely,

Christiaan Bruining,

Managing Director of Stell Stell Sign Projects India Ltd.



# Contents

# STELL Group



About the company	4
Our business approach – Labelling in a complete package	5

# Plant Labelling







Introduction	8
Original Stell "Stecksystem"	10
Printed and Engraved Signs	32
Slide-In System	36
Pipe Labelling – Stickers and Tapes	54
Tank Labelling	61
Pre-Labelling	64
Fastening and Accessories	65
Plans for Process Engineering	72

# Safety Identification







Introduction	76
Safety Way Guidance System	78
Additions to Safety Way Guidance System	82
Safety signs	84
Safety Markings for Obstacles and Hazardous Areas	97
Floor Marking and Anti-Slip Tapes	98
Knuffi® Warning and Protection Profiles	101
Plans for Safety Identification	104
Fastening and Accessories	107

# About the Company



Since 1973, we at Stell in Germany have established ourselves as a modern group of medium-sized companies on the market for labelling and signage solutions. Providing comprehension, safety and orientation in buildings and plants is our primary goal. High-quality materials and distinct industry knowledge in the fields of energy, chemicals and industry ensure that the working environment is clear-cut and safe for personnel and employees.

The labelling of plants as well as safety identification are among our core competencies. As a global group of companies with branches in India, Germany and the Netherlands, we work together with our partners and customers to ensure comprehensive, effective and correct labelling solutions.

Our aim is to offer you a 100% carefree package. Our business approach allows us to offer you a one-stop-shop for all steps of the process chain. Project planning, production, on-site installation and documentation supervised by qualified consulting – our labelling solutions represent a complete package. Thanks to this approach we provide optimal coverage for all customer requirements. In addition, we have built up a

close-knit network of competent and reliable partners and suppliers to provide extra services whenever needed.

### The Stell group at a glance

- 150 motivated employees
- more than 45 years of experience in the market
- distinct industry knowledge
- sustainable support

That's us! We look forward to meeting you.



# Our business approach – Labelling in a complete package

Current laws, regulations and standards are the focal points when it comes to labelling. By using our business approach, we ensure that as far as signage is concerned, the working environment is safe and easy to understand. Stell does much more than merely produce signs and labelling materials; we cover the entire process chain for labelling and achieve results that are precisely tailored to meet your individual needs.

The complete package includes reliable project planning, production, on-site installation and documentation. All four phases are always accompanied by the sustainable support of our employees. This approach helps you, the customer, to avoid the time-consuming task of coordinating different service providers on your own.

### Consulting

As part of our reliable service, we already advise you in advance on an independent, subject-specific basis. And also during the implementation process we will support you, answer your questions and keep you informed about the labelling process. By doing this, we are jointly able to maintain a safe and clear-cut working environment.

### **Project planning**

In order to establish a safe working environment, we determine the current labelling status on your premises and structures by means of an on-site evaluation. We examine your individual needs and record it as a basis to make future provisions for your equipment, the manufacture of your health and safety labelling, and/or the creation of an escape route plan. For example and after an onsite visit, we work out a list with required signs as well as labelling recommendations. We conduct discussions about necessary materials, contents, layouts and flexible installation and documentation with our customers in advance. Additionally, we carry out a check to see whether your piping and instrumentation diagrams, labelling and escape route plan are up to date after restructuring or maintenance works.

### Production - made in Germany

We manufacture your signs and plans in our very own production facility in Germany. Our dynamic manufacturing combined with direct access to our machinery allows us to tailor our production procedure to your individual order. We are glad to comply with requests for special designs and manufacture any standard product from our own warehouse in very good time. The in-house warehouse aids us in our goal of guaranteeing flexibility and quality for our customers. Our quality of the products is confirmed by certificates. Complying with ISO 9001, our production works according to generally recognised quality standards. In addition, our VCA certificate demonstrates distinct consideration for safety, health and environmental protection aspects.



### On-site installation

Various sign-, fastening- and product variants are presented, installed, tested and approved by our expert staff. Our own installation crew possess comprehensive background knowledge as well as an acute awareness of industry specifics and process engineering for plants. They are therefore able to work independently at your site and spare you the use of scarce resources. This of course isn't the only option, as we will gladly leave the on-site installation in your hands after the project planning and production is complete. We can also provide you with a supervisor who will help to ensure that your work meets the Stell quality standard.

### Documentation

Our insistence on high-quality work obliges us to keep detailed documentation of the on-site situation. Whether by handwriting, Excel or CAD, we document the steps of our labelling work and make them available to you on request. We draw up P&ID revision work according to DIN EN ISO 10628 as well as final drawings that include attribute allocation.

# **Stell Inspections App**



Inspection, Service and Maintenance – efficient and reliable



# Maintenance 4.0 - mobility thanks to Stell!

With the new Stell Inspections App you can use your mobile gadget for any kind of maintenance works. Thanks to our Auto-ID-Signs you can label your plant components and equipment and seamlessly connect them with modern systems. The customizable templates of our App will guide your technicians through all working steps that need to be carried out.

# Your benefits

NFC and RFID ready Stell signs allow for digital processing



Auto-ID-Components provide fault-free data acquisition for enhanced processing reliability



Staff, App and signs form a closed work cycle



Saving resources by paperless processing

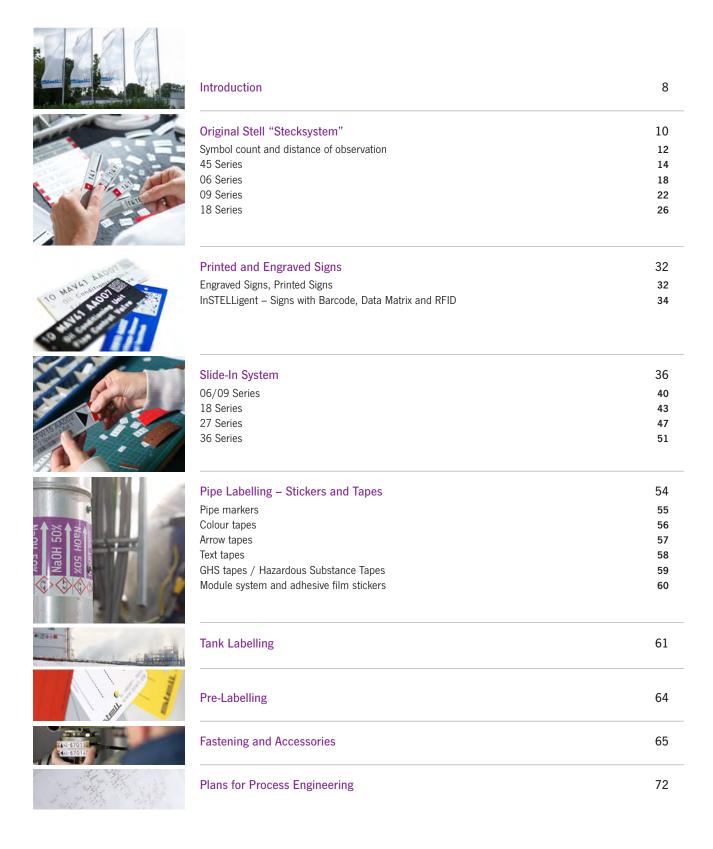


Increased efficiency by real-time evaluation of results

Want to know more? Get in contact with us today!



# Plant Labelling



# Introduction



To achieve clear understanding and sustainable work in energy and chemical plants, a distinct knowledge of plant components, pipes, tanks, containers is necessary. These days, straightforward plant labelling is indispensable.

In order to create a safe and comprehensive work environment it needs suitable planning, correct choice of the required labelling and professional fastening of the signs – which Stell offers as a complete package. During the planning phase we evaluate the on-site situation and the existing documentation. Should the required documentation, e.g. sign lists or up-to-date P&IDs, not be available we'll be happy to compile these for you, already taking into consideration the best choice of products and fastening materials. During the next phase, our expert staff independently carries out the labelling in a safe and professional manner for you. All of these tasks are included in the labelling project documentation (also in digital form of your choice) that will be handed out to you upon completion of the project or agreed parts of the project.

Thanks to a sophisticated product range, we are able to aid in providing comprehension and efficiency at your location. Whether specific identification Systems for Power Stations (KKS), plant labelling systems or customer coding, our signs permanently and concisely display essential information, facilitate communication and serve as a visual aid for you and your employees in your daily work. In addition, proper plant labelling helps to prevent operator errors or accidents and reduces the operating, maintenance and servicing costs throughout the entire service life.

# Compulsory labelling and its implementation – standards and laws

Plant labelling is either regulated by international law in its various areas of application, or existing standards apply as directives. In Europe and the USA, safety-relevant labels are required by law – especially at the workplace. In addition to the above mentioned identification Systems for Power Stations (KKS) or its successors – the Reference Designation System for Power Plants and plant labelling system – there are further regulations, standards and laws which are crucial to plant labelling.

Generally, plant labelling requires the labelling to be concise and in accordance with the latest technological standards.

Our labelling is designed according to German standard DIN 2403 (see grafic 1) as well as IS 2379:1990 (Indian standard for colour code for identification of pipe lines, and can be adapted to your individual needs

We would be pleased to advise you on your labelling obligations, functional set-ups and our in-house labelling systems.

	ap aa aaa	itional coloa	ii oi tiio iiai	d content (D	2 100)					
Application	Oxygen	Water	Steam	Air	Flammable gases	Non flamma- ble gases	Acids	Alkalis	Flammable liquids and fixed materials	Non flammable liquids and fixed materials
Group colour	RAL5005	RAL6032	RAL3001	RAL7004			RAL2010	RAL4008	RAL8002	RAL8002
Additional colour	-	-	-	-	RAL3001	RAL9004	-	-	RAL3001	RAL9004
Text colour	RAL9003*	RAL9003*	RAL9003*	RAL9004	RAL9004	RAL9004	RAL9004	RAL9003*	RAL9003*	RAL9003*



Grafic 2 CLP/GHS Pictogram Symbols and Hazard Classes







Flame Oxidizing

















How to label according to German DIN standards

with DIN 2403, the German Institute for Standardization defines the currently valid technology standard for labelling pipes according to their content for above ground pipes on land. In DIN 2403, the following components are defined as compulsory minimum specifications:

- Group and additional colour of the content
- Flow direction
- · Indication of the fluid content

Other indicators (pressure, temperature, etc.) are optional.

Furthermore, the standard specifies how large a label should be depending on its distance of observation, and it makes several labelling recommendations that should be followed.

### Specify the correct distance of observation

A formula is used for calculating and deciding on a label's size (Grafic 3) and the font height.

 $\mathbf{D} = \mathbf{h} \times \mathbf{Z}$ 

### Whereby:

**D** = the distance of observation,

h = the font height,

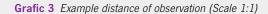
Z = the distance factor.

300 for letters and numbers

100 for fire protection signs

40 for hazard symbols

For us, the distance of observation is determined on two levels. Either the correct font height can be calculated from the desired distance of observation on site, or, depending on the maximum distance of observation, the correct installation location for the labelling can be determined from the potential font height at the site.



Distance of observation (D) text = 1.5 m



Distance of observation (D) GHS symbol = 1,5 m



# Original Stell "Stecksystem"



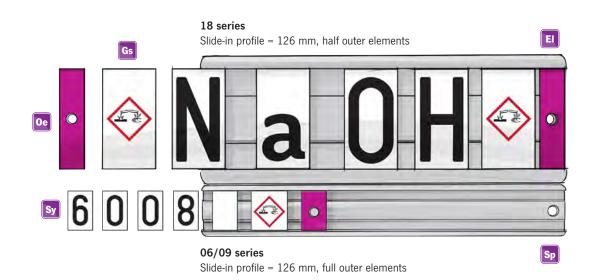
The original Stell "Stecksystem" is a patented product for plant labelling that is specially designed for the labelling of components. Consisting of a sign-bracket, a slide-in profile, individually insertable symbols (letters, numbers etc.) and outer elements, the "Stecksystem" allows you to individually handle and design your sign. All symbols can be exchanged and contents can be adjusted when required.

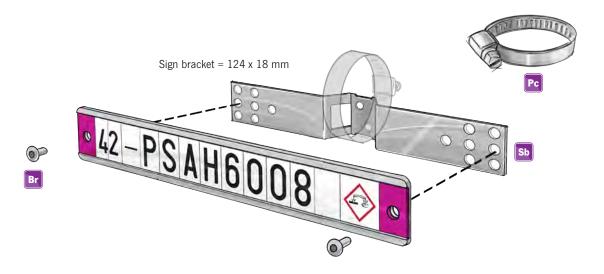
Codings and information are flexibly compiled as individual symbols and can be supplemented with hazardous substance or GHS pictograms, the medium's desired flow direction and its group colour in accordance to required standards or individual needs. The "Stecksystem" is available in various series which can be ideally combined, regardless of size.

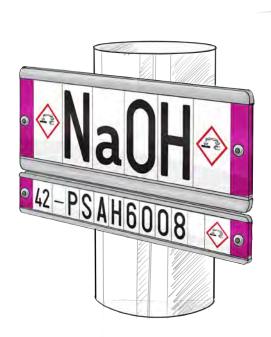
Two material designs are available for all series. Our trademark Luxotherm® plastic offers tremendous resistance against UV radiation and contains zero chlorides. All symbols and slide-in profiles are also available as aluminium versions should temperatures in the application area be higher. On request, the original Stell "Stecksystem" can be delivered with the necessary fastening material.













- Symbols (letters & numbers)
  - page 16, 20, 24, 30
- Sp Slide-in profile
  - page 14, 18, 22, 26
- Outer elements
  - page 15, 19, 23, 29
- GHS pictograms
- page 18, 22, 27
- Sign bracket
- Siehe Seite 65
- Pipe clamp
- page 66
- Blind rivets

page 68



### Symbol count and distance of observation

As the height of the font determines the distance of observation of your sign we offer the "Stecksystem" in different series, providing good visibility at close and long range. Having determined the required distance of observation and the corresponding font height you will now have to choose the number of symbols.

The overview shows how many characters and symbols will fit in a slide-in profile of a given length. Additionally, on the right side you can find a few examples of possible combinations of these series and the integration of special symbols as e.g. the GHS pictograms.

### Possible combinations of the "Stecksystem" series

	45 series	06 series	09 series	18 series		
	A	A	A	A		
Font height	5 mm	8 mm	10 mm	30 mm		
Observation distance	1,5 m	2,4 m	3 m	9 m		
Slide-in profile	Symbol count (with full of	outer elements)				
45 mm	6	-	-	_		
54 mm	8	-	_	-		
63 mm	10	-	_	_		
72 mm	12	9	6	2 / 3*		
81 mm	14	-	-	-		
90 mm	16	12	8	3 / 4*		
99 mm	18	-	-	-		
108 mm	20	15	10	4 / 5*		
126 mm	24	18	12	5 / 6*		
144 mm	28	21	14	6 / 7*		
162 mm	32	24	16	7 / 8*		
180 mm	36	27	18	8 / 9*		
198 mm	-	30	20	9 / 10*		
216 mm	-	33	22	10 / 11*		
234 mm	-	36	24	11 / 12*		
252 mm	-	39	26	12 / 13*		
270 mm	-	42	28	13 / 14*		
288 mm	-	45	30	14 / 15*		
306 mm	-	48	32	15 / 16*		
324 mm	-	51	34	16 / 17*		
342 mm	-	-	-	17 / 18*		
360 mm	-	_	-	18 / 19*		

- = length not available

= example on page 13

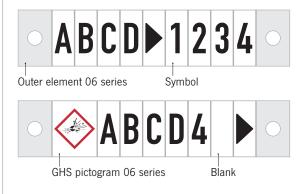
\*half outer elements



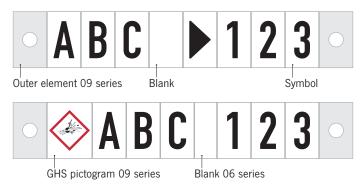
45 series



06 series



09 series

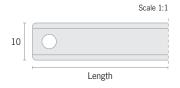


18 series



13

Distance of observation 1,5 m



# Sp Slide-in profile

Material		Quant	tity Articl
Chlorid free plastic K / Alu	uminium, anodised A	5 piec	es 0002
Length	Number of symbols*	Mat.	Mat.
45 mm	6	Order-No. K	2061 <b>A</b> 204
54 mm	8	Order-No. K	2062 <b>A</b> 205
63 mm	10	Order-No. K	2063 <b>A</b> 205
72 mm	12	Order-No. K	2064 <b>A</b> 205
81 mm	14	Order-No. K	2065 <b>A</b> 205
90 mm	16	Order-No. K	2066 <b>A</b> 205
99 mm	18	Order-No. K	2067 <b>A</b> 205
108 mm	20	Order-No. K	2068 <b>A</b> 205
126 mm	24	Order-No. K	2069 <b>A</b> 205
144 mm	28	Order-No. K	2070 <b>A</b> 205
162 mm	32	Order-No. K	2071 <b>A</b> 205
180 mm	36	Order-No. K	2072 <b>A</b> 206

 $<sup>{}^\</sup>star \text{The number of symbols takes into account that 2 outer elements are always added.}$ 

### Fastening

Find the suitable fastening from our system starting on page 65



# Outer elements

Design

without hole

with hole

Mat.

2366

2348

2365

2347

Order-No. L

Order-No.

Order-No. L

Order-No.

Scale 1:1 Material Quantity Article Luxotherm® L / Aluminium, anodised A 0001 15 pieces DIN 2403 No colour RAL3001 Design Mat. Order-No. L 2338 2322 2324 2326 2328 without hole Order-No. 2318 2302 2304 2306 2308 Order-No. L 2337 2321 2323 2325 2327 with hole Order-No. A 2317 2301 2303 2305 2307 Liquids and fixed materials Alkalis Additional colour RAL4008 Black RAL8002 Mat. Group 4/5 Group 6 Design Order-No. L 2330 2332 2334 2336 2340 without hole Order-No. A 2310 2312 2314 2316 2320 Order-No. L 2329 2331 2333 2335 2339 with hole Order-No. 2309 2311 2313 2315 2319 Fire fighting NEN 3050 No colour Design Mat. Order-No. L 2338 2372 2362 2364 2360 without hole Order-No. A 2346 2318 2354 2344 2342 Order-No. L 2371 2361 2363 2359 2337 with hole Order-No. A 2353 2343 2345 2341 2317 Other liquids Water

2368

2350

2367

2349

RAL6010

2374

2356

2373

2355

2376

2358

2375

2357

Black

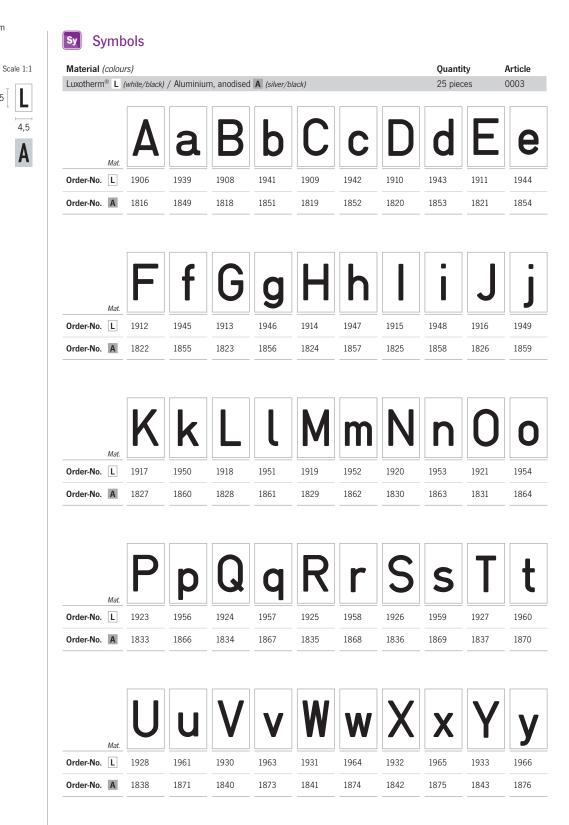
2340

2320

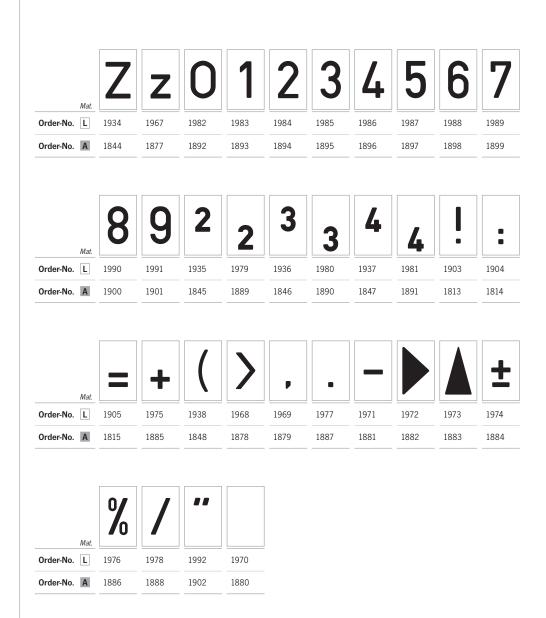
2339

2319

Distance of observation 1,5 m







Distance of observation 2,4 m

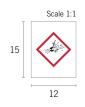
Scale 1:1 20 Length

# Sp Slide-in profile

Material		(	Qua	ntity	Α	rticle
Chlorid free plastic K / Alu	uminium, anodised A	5	pie	eces	0	002
Length	Number of Symbols*		Mat.		Mat.	
72 mm	9	Order-No.	K	2008	Α	1993
90 mm	12	Order-No.	K	2009	Α	1994
108 mm	15	Order-No.	K	2010	Α	1995
126 mm	18	Order-No.	K	2011	Α	1996
144 mm	21	Order-No.	K	2012	Α	1997
162 mm	24	Order-No.	K	2013	Α	1998
180 mm	27	Order-No.	K	2014	Α	1999
198 mm	30	Order-No.	K	2015	Α	2000
216 mm	33	Order-No.	K	2016	Α	2001
234 mm	36	Order-No.	K	2017	Α	2002
252 mm	39	Order-No.	K	2018	Α	2003
270 mm	42	Order-No.	K	2019	Α	2004
288 mm	45	Order-No.	K	2020	Α	2005
306 mm	48	Order-No.	K	2021	Α	2006
324 mm	51	Order-No.	K	2022	Α	2007

 $<sup>^{*}</sup>$ The number of symbols takes into account that there are always two additional outer elements. 1 GHS symbol has the same width as 2 symbols.

# **GS** GHS pictograms

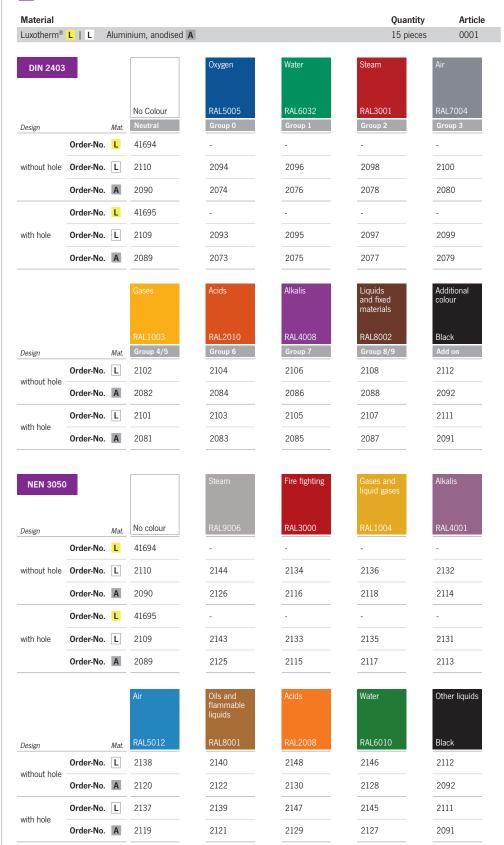




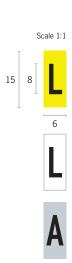


# Outer elements

Scale 1:1 15 9

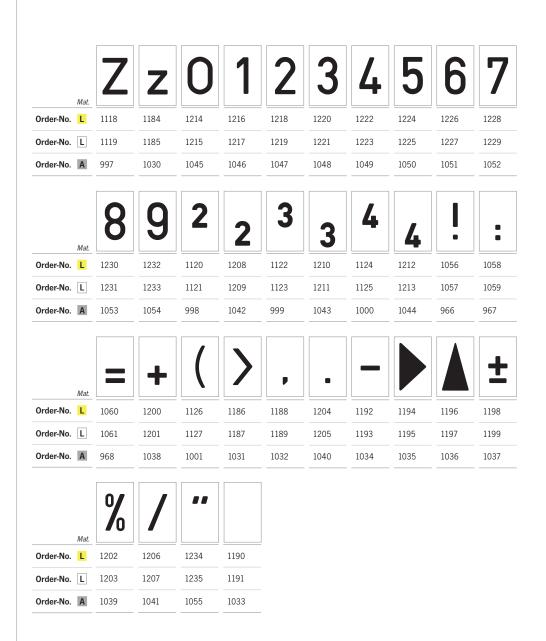


Distance of observation 2,4 m

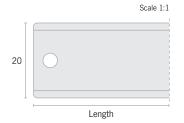








Distance of observation 3 m



# Sp Slide-in profile

Material		Quantity	Article
Chlorid free plastic K / Alu	uminium, anodised A	5 pieces	0002
Length	Number of symbols!*	Mat.	Mat.
72 mm	6	Order-No. K 200	8 <b>A</b> 1993
90 mm	8	Order-No. K 200	9 <b>A</b> 1994
108 mm	10	Order-No. K 2010	<b>A</b> 1995
126 mm	12	Order-No. K 201	1 <b>A</b> 1996
144 mm	14	Order-No. K 2012	2 <b>A</b> 1997
162 mm	16	Order-No. K 2013	3 <b>A</b> 1998
180 mm	18	Order-No. K 2014	4 <b>A</b> 1999
198 mm	20	Order-No. K 2015	5 <b>A</b> 2000
216 mm	22	Order-No. K 2016	6 <b>A</b> 2001
234 mm	24	Order-No. K 2017	7 <b>A</b> 2002
252 mm	26	Order-No. K 2018	8 <b>A</b> 2003
270 mm	28	Order-No. K 2019	9 <b>A</b> 2004
288 mm	30	Order-No. K 202	0 <b>A</b> 2005
306 mm	32	Order-No. K 202	1 <b>A</b> 2006
324 mm	34	Order-No. K 202	2 <b>A</b> 2007

<sup>\*</sup>The number of symbols takes into account that there are always two additional outer elements.

# **GS** GHS pictograms

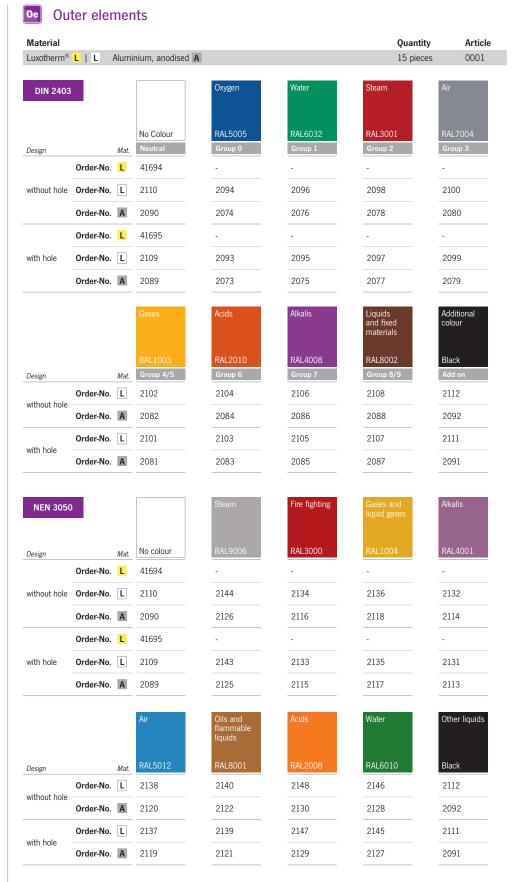


\_





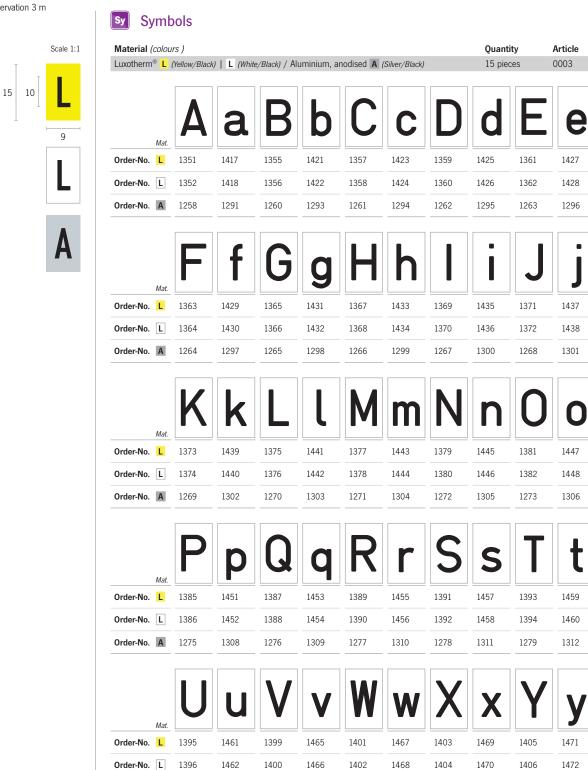




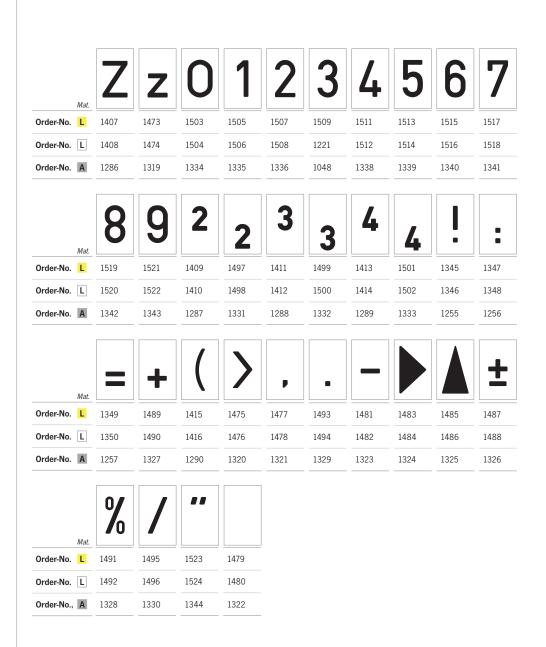
Order-No.

### 09 Series

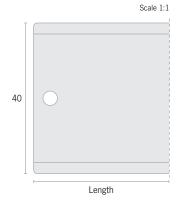
Distance of observation 3 m







Distance of observation 9 m



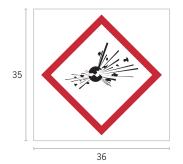
# Sp Slide-in profile

Material		Quan	-
Chlorid free plastic <b>K</b> / Alu	uminium, anodised A	5 piec	es 0002
Length	Number of SymbolsI*	Mat.	Mat.
72 mm	2 / 3**	Order-No. K	6782 <b>A</b> 6778
90 mm	3 / 4**	Order-No. K	6783 <b>A</b> 6779
108 mm	4 / 5**	Order-No. K	6784 <b>A</b> 6780
126 mm	5 / 6**	Order-No. K	6785 <b>A</b> 6781
144 mm	6 / 7**	Order-No. K	2036 <b>A</b> 2023
162 mm	7 / 8**	Order-No. K	2037 <b>A</b> 2024
180 mm	8 / 9**	Order-No. K	2038 <b>A</b> 2025
198 mm	9 / 10**	Order-No. K	2039 <b>A</b> 2026
216 mm	10 / 11**	Order-No. K	2040 <b>A</b> 2027
234 mm	11 / 12**	Order-No. K	2041 <b>A</b> 2028
252 mm	12 / 13**	Order-No. K	2042 <b>A</b> 2029
270 mm	13 / 14**	Order-No. K	2043 <b>A</b> 2030
288 mm	14 / 15**	Order-No. K	2044 <b>A</b> 2031
306 mm	15 / 16**	Order-No. K	2045 <b>A</b> 2032
324 mm	16 / 17**	Order-No. K	2046 <b>A</b> 2033
342 mm	17 / 18**	Order-No. K	2047 <b>A</b> 2034
360 mm	18 / 19**	Order-No. K	2048 <b>A</b> 2035

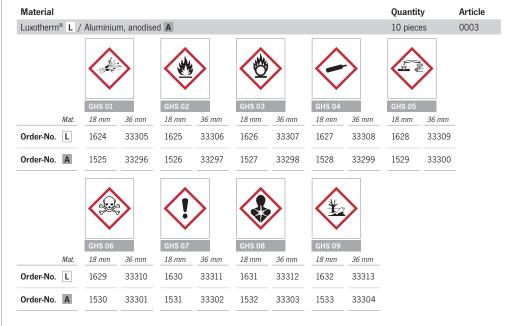
<sup>\*</sup>The number of symbols takes into account that there are always two additional outer elements. \*\*With half outer elements



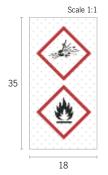




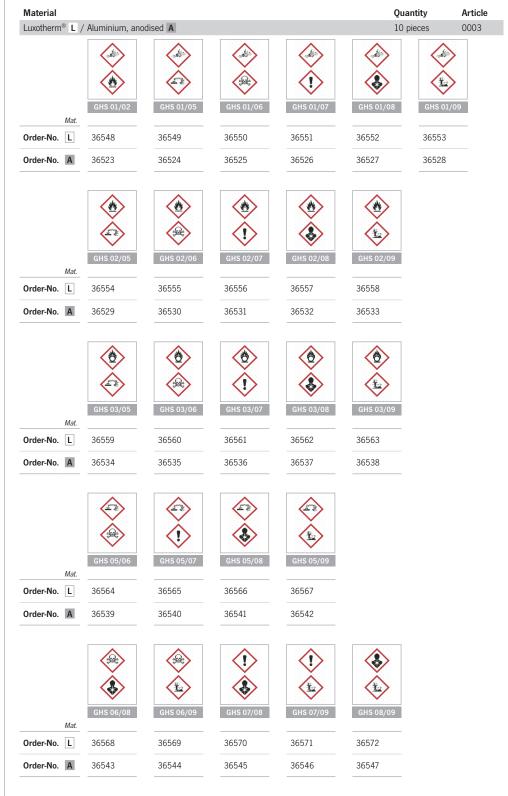
# GHS pictograms



Distance of observation 9 m



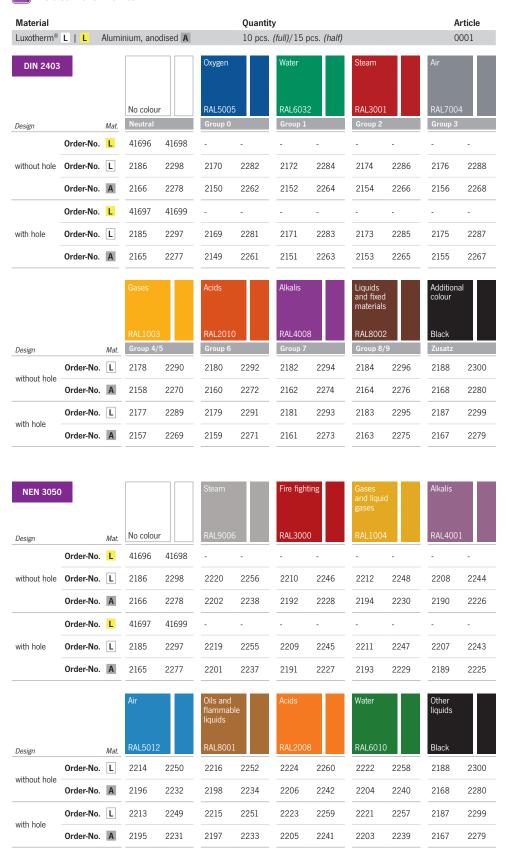






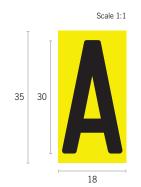
# Scale 1:1 35 Full Half 18 9

# Outer elements



18 Series

Distance of observation 9 m

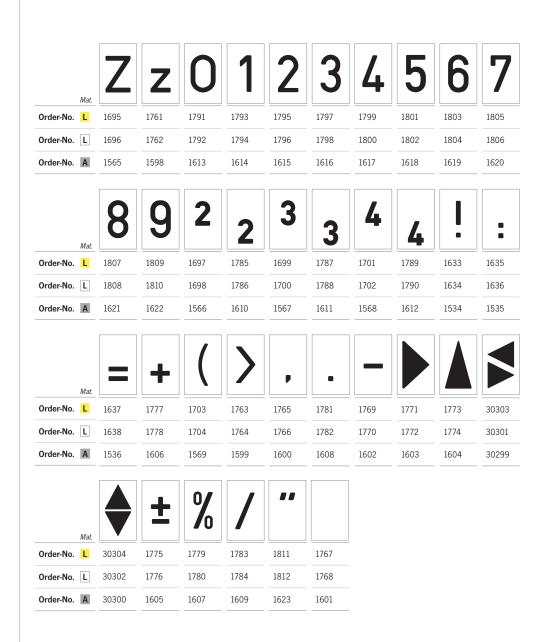












# Printed and Engraved Signs



When we talk about signs, we are usually referring to engraved or printed signs for plant labelling which are manufactured at our location in Bocholt. Both versions are available in a variety of basic materials, the standard sizes are perfectly matched to our fastenings, and they can be provided with data components such as QR codes or RFID. The location's conditions serve as the determining factor in selecting the material and the production process.

### Printed signs

Fast production even with large quantities.

Our machines can process a multitude of substrates with a wide variety of colour systems. These range from conventional solvent-based colours to multi-component colours and lacquers with extreme resistance to external influences through UV-hardening paints. Additionally, we offer a wide selection of printable materials, among them conventional polyvinyl chloride, various metals, plastics and acrylates. This way, new and frequently used contents can be combined by making use of a multitude of implementation variants.

### **Engraved signs**

The classic when it comes to price-performance ratio.

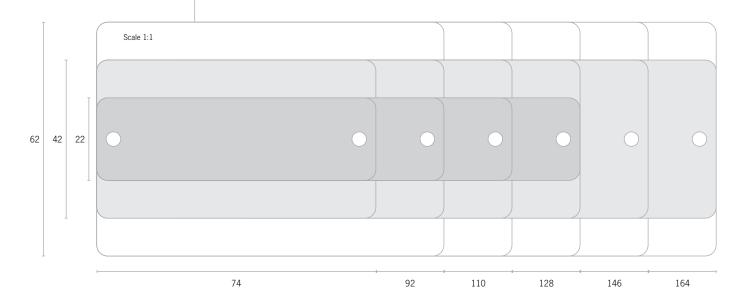
Simple and long-lasting labelling, even in temperature critical areas. Our in-house production allows us to offer cost-effective engraving and short-term delivery times. Through milling, machine engraving and laser engraving, we are able to cleanly and precisely label all plastic and metal signs. We offer about 80 different basic materials, surface textures and colour tones for you to choose from. When engraving and milling metals, the contrast in the material can also be significantly increased by the colouring of the milling groove.





# Standard sizes for printed and engraved signs

Below mentioned standard sizes match our fastening systems and tools. However, different sizes are available upon request.



# 5 A 6 A 8 A 10 A

Scale 1:1



# Character count and distance of observation

Coding and text message represent the essence of a sign. The required length of the text depends on the desired, resp. the required height of the text and the resulting length of the sign.

Font height (mm)			5	6	8	10	12	14	16	18	20	22							
Distance of observation (m)			1,5	1,8	2,4	3	3,6	4,2	4,8	5,4	6	6,6							
Length (mm)	Heig	ht (m	m)	Character co	ount per	line*													
7.4	20	40		with hole	20	17	13	10	9	7	6	6	5	5					
74 mm	22	22   42	22   42	-	without hole	24	20	15	12	10	8	7	7	6	6				
92 mm	20	22 42	62	with hole	26	22	17	13	11	9	8	8	6	6					
92 111111	22		742	02	without hole	30	25	19	15	12	10	9	9	7	7				
110 mm	22 42	40	-	with hole	32	27	21	16	13	11	10	10	7	7					
110 mm		22	42	62	without hole	36	30	23	18	14	12	11	11	8	8				
128 mm	22	40	62	with hole	38	32	25	19	15	13	12	12	9	9					
		22 42	62	without hole	42	35	27	21	16	14	13	13	10	10					
146		40	60	with hole	44	37	29	22	17	15	14	14	11	11					
146 mm	-	- 42	-	-	- 42	- 42	- 42	62	without hole	48	40	31	23	18	16	15	15	12	12
164		40	60	with hole	50	42	33	25	19	17	16	16	13	13					
164 mm	_	42	62	without hole	54	45	35	27	20	18	17	17	14	14					

 $<sup>^\</sup>star$ Stated values are approximate values that can vary, depending on font. Standard font is DIN 1451.

# InSTELLigent Products - Signs with Barcode, Data Matrix and RFID



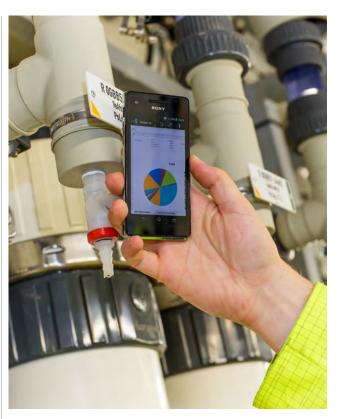
In addition to the optical information on our signs, electronically readable information is applied to them as a reference. Both our printed and engraved signs can contain an OCR font, a barcode or a Data Matrix as integral part of the print, resp. engraving. Additionally, the usage of RFID technology is an interesting option for the industries of our customers. These intelligent signs come in all sorts of shapes and represent interfaces for maintenance and servicing works of plants and plant parts and the automated identification on pipes, networks and components. We can offer you an extensive selection of signs and basic materials to create your individual interface, so please do not hesitate to get in contact with us.

### Data Matrix / OCR Code

The QR code, which is used often nowadays, can be especially well recognised by simple terminal devices, therefore offering an extensive range of applications. Even in rough environments, it is not very susceptible to contamination or scratching and it can still be read if up to 25% of it is damaged. The most important aspect for reliable readability is a suitable contrast between the underground and the Data Matrix which mainly depends on the on-site lighting conditions. Would you like to know more about this application? Please get in contact with us!

### **RFID**

A step further with regard to automation and data exchange are RFID transponders. The RFID technology allows (process) information to be read, stored and overwritten in the transponder (at the installation location in the plant) without any physical contact. Any sign equipped with an RFID transponder can thus be uniquely identified without exception. Excellent adhesive quality and resistance also make our RFID signs suitable for use in harsher environments. And if you want to take this technology to the next level you should consider our new high-tech sign with integrated transponder – the R2D2 sign.





### R2D2 - Ran-in RFID Durable Datasign

Our patented R2D2 sign has been developed to offer digital interfaces for all plant areas even in harsh conditions. One solution for any kind of intended usage.

R2D2 consists of reinforced high-performance plastic in which an RFID transponder is permanently embedded. The basic material can be engraved or printed so it represents a perfect advancement of already existing labelling means. Thanks to the combination of implemented materials and production method and the fixed connection between the transponder and the sign, R2D2 is likely to be today's most resilient intelligent labelling solution. To get the most out of the R2D2 technology we've adjusted the production method so that all signs will undergo a complete automated check. This way we can guarantee that the visual and digital information of the sign is always identical, ensuring the most important aspect of safe automatization – 100% reliability.

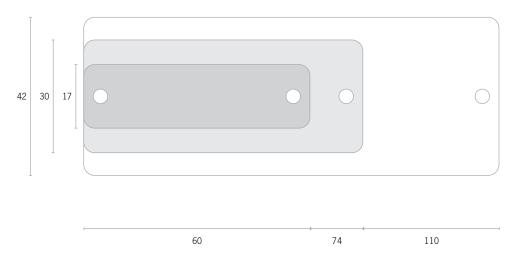
### The benefits of R2D2 at a glance:

- Clear identification with a worldwide unique serial number
- 30 years of data security
- Standard frequency range of 13.56 MHz
- · Guaranteed 100% match between text and data
- Temperature resistance from -40 °C to 150 °C
- · Permanently embedded RFID transponder
- Excellent writing and reading qualities
- No shielding effects from metal (MoM)
- Very good resistance to UV radiationGood resistance to acid and chemicals
- Perfectly matched to our fastening systems



### Standard sizes of R2D2-signs

Scale 1:1



# Slide-In System



The slide-in system combines the advantages of the original Stell "Stecksystem" and the product range for engraved and printed signs. Comprised of a slide-in profile, an engraved or printed insert as well as insertable symbols, it offers you flexibility and increased information density.

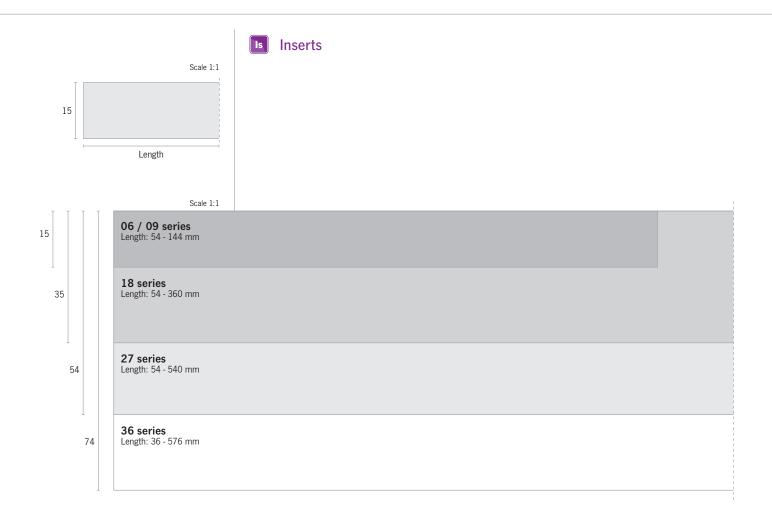
The printed or engraved signs are inserted into a slide-in profile and contain customer-specific information on plant operation and the pipe sequence, or additional information on test circuits, pipe pressure or the addresses. In addition, the flow direction, GHS pictograms, colours, etc. are slid and riveted as standard elements in alignment with our standard sizes. The slide-in system is particularly suitable for our customers who would like to personally handle and change their labelling, but at the same time want to show a lot of concentrated on-site information.





Slide-in profile = 144 mm, half outer elements V100 EZ438 LR141 0e Gas from P27 to TNV Af Sp Is Gs Sign bracket =  $142 \times 18 \text{ mm}$ Pc V100 EZ438 LR141

Gas
from P27 to TNV Inserts Flow direction arrows page 40, 43, 47, 51 page 42, 45, 49, 53 Slide-in profiles Sign brackets page Seite 65 page 40, 43, 47, 51 Outer elements Pipe clamps page 41, 44, 48, 52 page Seite 66 GHS pictograms Blind rivets page 42, 45, 49, 53 page Seite 68 V100 EZ438 LR141 Gas from P27 to TNV





22

Scale 1:1







#### Letter count and distance of observation

Font height (mm)

Coding and text message represent the essence of a sign. The required length of the text depends on the desired, resp. the required height of the text and the resulting length of the sign. The following overview shows the relevant proportions for engraved and printed signs.

10 12 14 16 18 20

Distance of observa	ation (m	1)			1,5	1,8	2,4	3	3,6	4,2	4,8	5,4	6	6,6
Serie ►	1													
Length of inserts	_	nt of inser					ount p				-			
36 mm	-	-	-	74	11	9	7	5	4	3	3	3	2	2
54 mm	15	35	54	74	17	14	10	8	7	6	5	4	4	3
72 mm	15	35	54	74	23	19	14	11	9	8	7	6	5	5
81 mm	-	-	54	-	26	21	16	13	10	9	8	7	6	5
90 mm	15	35	54	74	29	24	18	14	12	10	9	8	7	6
99 mm	-	35	54	-	32	26	20	16	13	11	10	8	8	7
108 mm	15	35	54	74	35	29	21	17	14	12	10	9	8	7
117 mm	-	35	54	-	37	31	23	18	15	13	12	10	9	8
126 mm	15	35	54	74	40	34	25	20	17	14	12	11	10	9
135 mm	-	35	54	_	43	36	27	21	18	15	13	12	10	9
144 mm	15	35	-	74	46	38	29	23	19	16	14	12	11	10
153 mm	-	35	54	_	49	41	30	24	20	17	15	13	12	11
162 mm	-	35	54	74	52	43	32	26	21	18	16	14	13	11
171 mm	-	35	54	-	55	46	34	27	23	19	17	15	13	12
180 mm	-	35	54	74	58	48	36	29	24	20	18	16	14	13
189 mm	-	35	54	-	61	51	38	30	25	21	19	17	15	13
198 mm	-	35	54	74	64	53	40	32	26	22	20	17	16	14
207 mm	_	35	54	-	67	55	41	33	27	23	20	18	16	15
216 mm	_	35	54	74	69	58	43	34	29	24	21	19	17	15
225 mm	-	35	54	-	72	60	45	36	30	26	22	20	18	16
234 mm	_	35	54	74	75	63	47	37	31	27	23	21	18	17
243 mm	_	35	54	-	78	65	49	39	32	28	24	21	19	17
252 mm	-	35	54	74	81	68	51	40	34	29	25	22	20	18
261 mm	-	35	54	-	84	70	52	42	35	30	26	23	21	19
270 mm	-	35	54	74	87	72	54	43	36	31	27	24	21	19
279 mm		35	54	-	90	75	56	45	37	32	28	25	22	20
	-											_		_
288 mm	-	35	54	74	93	77	58	46	38	33	29	25	23	21
297 mm	-	35	54	7.4	96	80	60	48	40	34	30	26	24	21
306 mm	-	35	54	74	99	82	61	49	41	35	31	27	24	22
315 mm	-	35	54	-	101	85	63	51	42	36	31	28	25	23
324 mm	-	35	54	74	104	87	65	52	43	37	32	29	26	23
333 mm	-	35	54	-	107	90	67	53	45	38	33	29	26	24
342 mm	-	35	54	74	111	92	69	55	46	39	34	30	27	25
351 mm	-	35	54	-	113	94	71	56	47	40	35	31	28	25
360 mm	-	-	-	74	116	97	72	58	48	41	36	32	29	26
369 mm	-	_	54	-	119	99	74	59	49	42	37	33	29	27
378 mm	-	-	54	-	122	102	76	61	51	43	38	34	30	27
396 mm	-	_	-	74	129	107	80	64	53	45	40	35	31	28
405 mm	-	-	54	_	131	109	81	65	54	46	41	36	32	29
414 mm	-	-	54	-	133	111	83	67	55	47	41	37	33	30
432 mm	-	-	54	74	139	116	87	70	58	50	43	38	35	31
441 mm	-	-	54	-	142	119	89	71	59	51	44	39	35	32
450 mm	-	-	54	74	145	121	91	72	60	52	45	40	36	33
459 mm	-	-	54	-	148	124	92	74	62	53	46	41	37	33
468 mm	-	-	54	74	151	127	94	75	63	54	47	42	37	34
477 mm	-	-	54	-	154	128	96	77	64	55	48	42	38	35
486 mm	_	_	54	-	157	131	98	78	65	56	49	43	39	35
504 mm	_	_	54	74	163	136	102	81	67	58	51	45	40	37
513 mm	_	-	54	-	166	138	103	83	69	59	51	46	41	37
			54	74	174		103	87	72		54	48	43	39
540 mm	-	-			_	145				62				_
576 mm	-	-	-	74	186	155	116	93	77	66	58	51	46	42

Please note: The max. character count might vary due to the different shapes of the characters. As standard for calculation, the letter "G" had been set for the fonts listed on the right side.

#### 06 / 09 Series

Scale 1:1

54 up to 144 mm

15

#### Inserts

Standard sizes 54 up to 144 mm. Other sizes and prices on request.

Quantity

5 pieces

Mat.

Order-No. K 2008

Order-No. K 2009

Order-No. K 2010

Order-No. K 2011

**Order-No. K** 2012

Order-No. K 2013

Article

0002

**A** 1993

A 1994

**A** 1995

A 1996

**A** 1997

A 1998

Mat.

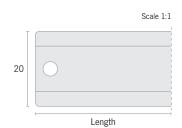
#### Sp Slide-in profile

Chlorid free plastic K / Aluminium, anodised A Length of insert\* Length 54 mm 72 mm 90 mm 72 mm 108 mm 90 mm 126 mm 108 mm 144 mm 126 mm

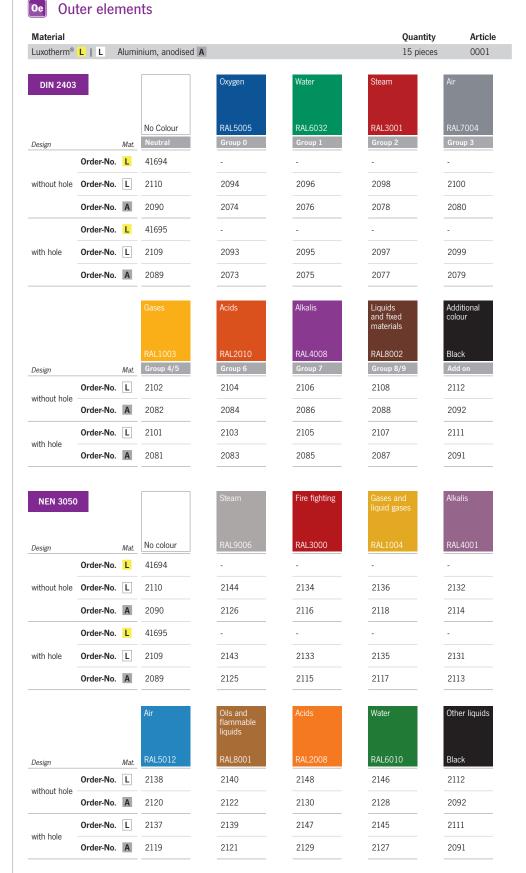
162 mm \*The number of symbols takes into account that there are always two additional outer elements.

144 mm

Fastening: page 65



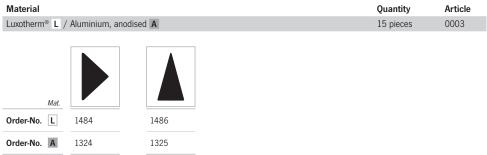




#### 06 / 09 Series

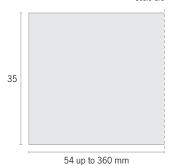








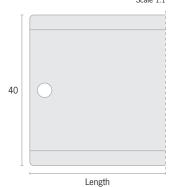
Scale 1:1



#### Inserts

Standard sizes 54 up to 360 mm. Other sizes and prices on request.

Scale 1:1

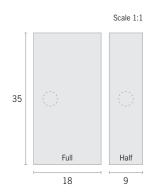


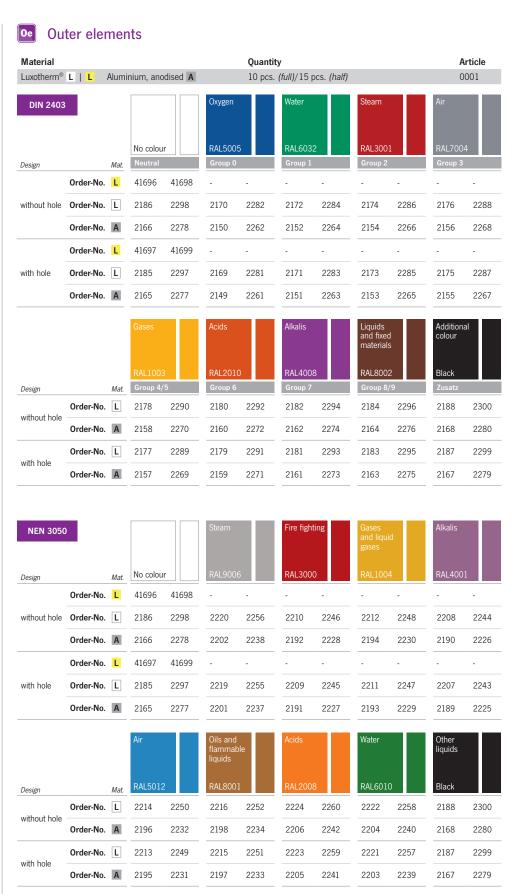
#### Sp Slide-in profiles

Material			Qua	ntity	Α	rticle
Chlorid free plastic K / Alu	ıminium, anodised A		5 pie	eces	0	002
Length	Length of inserts*		Mat.		Mat.	
72 mm	- / 54** mm	Order-No.	K	6782	Α	6778
90 mm	54 / 72** mm	Order-No.	K	6783	Α	6779
108 mm	72 / 90** mm	Order-No.	K	6784	Α	6780
126 mm	90 / 108** mm	Order-No.	K	6785	Α	6781
144 mm	108 / 126** mm	Order-No.	K	2036	Α	2023
162 mm	126 / 144** mm	Order-No.	K	2037	Α	2024
180 mm	144 / 162** mm	Order-No.	K	2038	Α	2025
198 mm	162 / 180** mm	Order-No.	K	2039	Α	2026
216 mm	180 / 198** mm	Order-No.	K	2040	Α	2027
234 mm	198 / 216** mm	Order-No.	K	2041	Α	2028
252 mm	216 / 234** mm	Order-No.	K	2042	Α	2029
270 mm	234 / 252** mm	Order-No.	K	2043	Α	2030
288 mm	252 / 270** mm	Order-No.	K	2044	Α	2031
306 mm	270 / 288** mm	Order-No.	K	2045	Α	2032
324 mm	288 / 306** mm	Order-No.	K	2046	Α	2033
342 mm	306 / 324** mm	Order-No.	K	2047	Α	2034
360 mm	324 / 342** mm	Order-No.	K	2048	Α	2035
* The number of symbols takes	into account that there are always two additional outer elements					

<sup>\*</sup> The number of symbols takes into account that there are always two additional outer elements. 
\*\* With half outer elements

Fastening: page 65

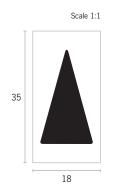




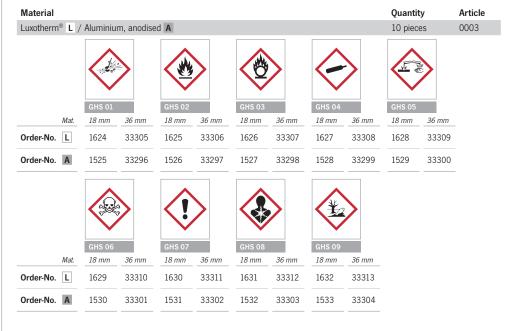








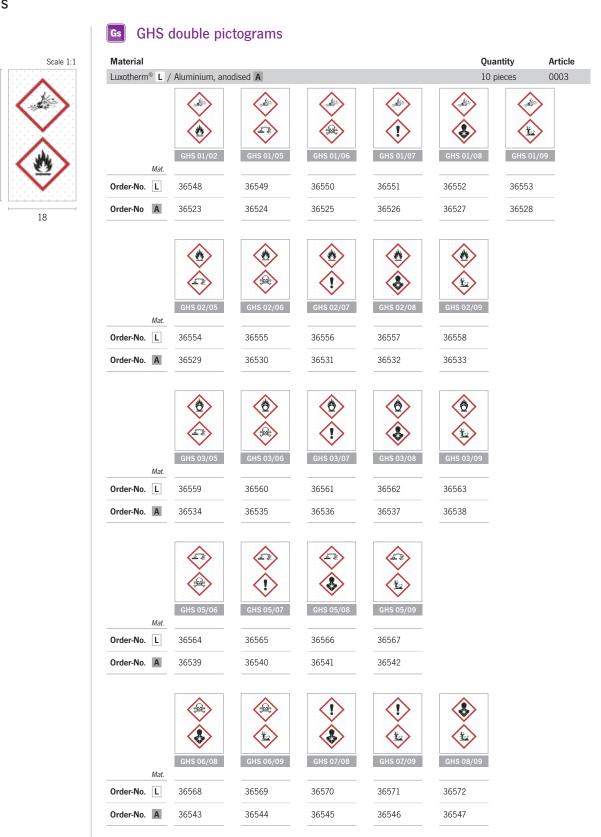
#### GS GHS pictograms



#### Flow direction arrows

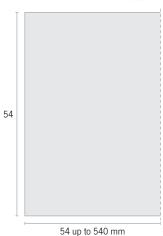
Material					Quantity	Article
Luxotherm® L /	Aluminium, anodise	d A			10 pieces	0003
Mat.						
Order-No.	1772	1774	30301	30302		
Order-No. A	1603	1604	30299	30300		

35

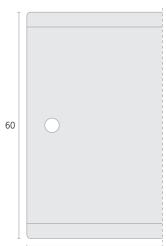




Scale 1:1



Scale 1:1



Length

#### Inserts

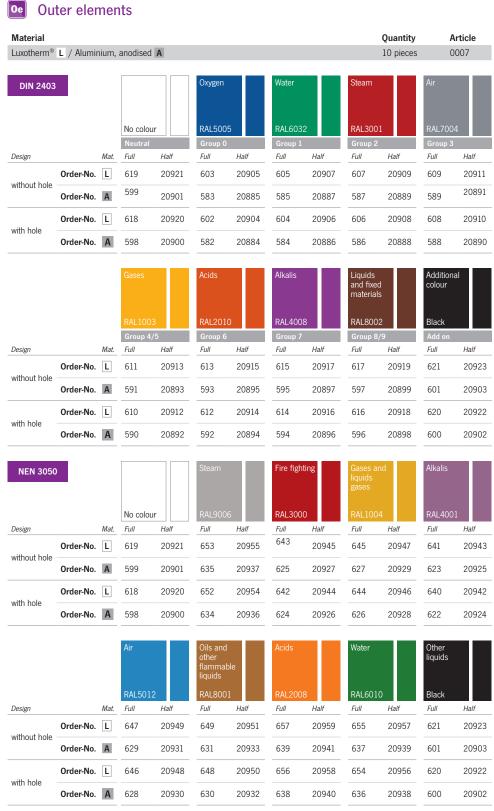
Standard sizes 54 up to 540 mm. Other sizes and prices on request.

#### Sp Slide-in profiles

Material			Qua	ntity	Α	rticle
Chlorid free plastic K / Alumin	inium, anodised A		5 pie	eces	0	800
Length	Length of inserts*		Mat.		Mat.	
108 mm	54 / 81** mm	Order-No.	K	6812	Α	6794
126 mm	72 / 99** mm	Order-No.	K	22066	Α	22059
144 mm	90 / 117** mm	Order-No.	K	22067	Α	22060
162 mm	108 / 135** mm	Order-No.	K	544	Α	536
180 mm	126 / 153** mm	Order-No.	K	22068	Α	22061
198 mm	144 / 171** mm	Order-No.	K	22069	Α	22062
216 mm	162 / 189** mm	Order-No.	K	545	Α	537
234 mm	180 / 207** mm	Order-No.	K	22070	Α	22063
252 mm	198 / 225** mm	Order-No.	K	22071	Α	22064
270 mm	216 / 243** mm	Order-No.	K	546	Α	538
288 mm	234 / 261** mm	Order-No.	K	6813	Α	6795
306 mm	252 / 279** mm	Order-No.	K	6814	Α	6796
324 mm	270 / 297** mm	Order-No.	K	547	Α	539
342 mm	288 / 315** mm	Order-No.	K	6815	Α	6797
360 mm	306 / 333** mm	Order-No.	K	6816	Α	6798
378 mm	324 / 351** mm	Order-No.	K	548	Α	540
396 mm	342 / 369** mm	Order-No.	K	6817	Α	6799
432 mm	378 / 405** mm	Order-No.	K	549	Α	541
468 mm	414 / 441** mm	Order-No.	K	6818	Α	6800
486 mm	432 / 459** mm	Order-No.	K	550	Α	542
504 mm	450 / 477** mm	Order-No.	K	6819	Α	6801
540 mm	486 / 513** mm	Order-No.	K	551	Α	543
* The musebass of assemble telese into						

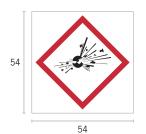
<sup>\*</sup> The number of symbols takes into account that there are always two additional outer elements. \*\* With half outer elements

# Scale 1:1 | Half Full | 13,5 | 27





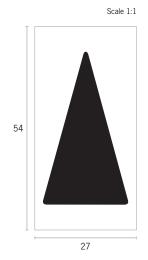




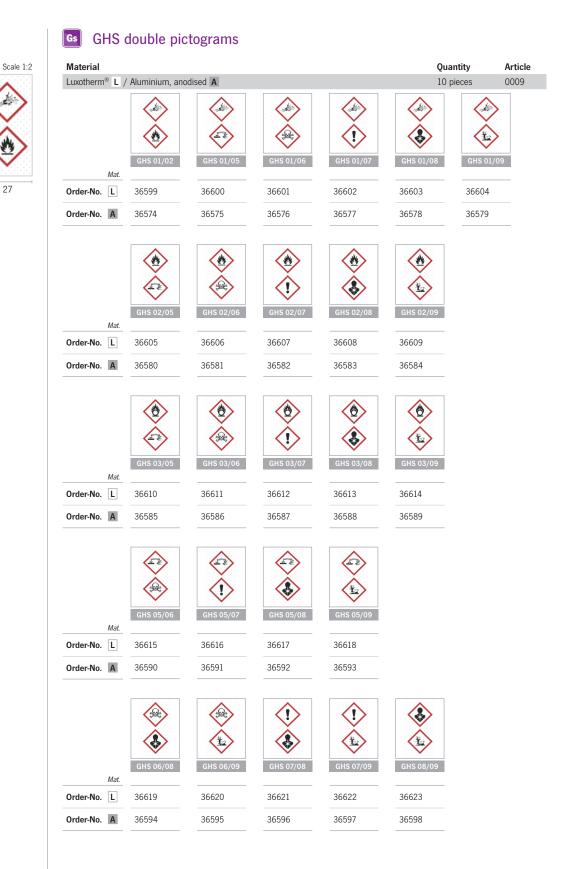
# Gs GHS pictograms Material



#### Flow direction arrows



Material				Quantity	Article
Luxotherm® L / Aluminium, anodised	d A			10 pieces	0009
Mat.					
Order-No. L 484	485	30307	30308		
Order-No. A 459	460	30305	30306		



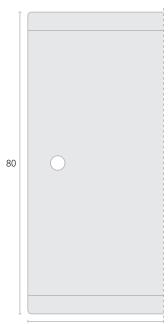


Scale 1:1



36 up to 576 mm

Scale 1:1



Length

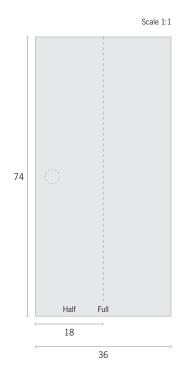
#### Inserts

Standard sizes 36 up to 576 mm. Other sizes and prices on request.

#### Sp Slide-in profile

Material			Qua	ntity	Α	rticle
Chlorid free plastic K / Aluminium, anod	lised A		5 pie	eces	0	800
Length	Length of inserts*		Mat.		Mat.	
108 mm	36 / 72** mm	Order-No.	K	6820	Α	6802
126 mm	54 / 90** mm	Order-No.	K	6821	Α	6803
144 mm	72 / 108** mm	Order-No.	K	566	Α	552
162 mm	90 / 126** mm	Order-No.	K	6822	Α	6804
180 mm	108 / 144** mm	Order-No.	K	567	Α	553
198 mm	126 / 162** mm	Order-No.	K	6823	Α	6805
216 mm	144 / 180** mm	Order-No.	K	568	Α	554
234 mm	162 / 198** mm	Order-No.	K	6825	Α	6806
252 mm	180 / 216** mm	Order-No.	K	569	Α	555
270 mm	198 / 234** mm	Order-No.	K	6826	Α	6807
288 mm	216 / 252** mm	Order-No.	K	570	Α	556
306 mm	234 / 270** mm	Order-No.	K	6827	Α	6808
324 mm	252 / 288** mm	Order-No.	K	571	Α	557
342 mm	270 / 306** mm	Order-No.	K	6828	Α	6809
360 mm	288 / 324** mm	Order-No.	K	572	Α	558
378 mm	306 / 342** mm	Order-No.	K	6829	Α	6810
396 mm	324 / 360** mm	Order-No.	K	573	Α	559
432 mm	360 / 396** mm	Order-No.	K	574	Α	560
468 mm	396 / 432** mm	Order-No.	K	575	Α	561
486 mm	414 / 450** mm	Order-No.	K	6830	Α	6811
504 mm	432 / 468** mm	Order-No.	K	576	Α	562
540 mm	468 / 504** mm	Order-No.	K	577	Α	563
576 mm	504 / 540** mm	Order-No.	K	578	Α	564
612 mm	540 / 576** mm	Order-No.	K	579	Α	565
*The number of symbols takes into account that	thoro are always two additional outer elements					

<sup>\*</sup>The number of symbols takes into account that there are always two additional outer elements. \*\*With half outer elements







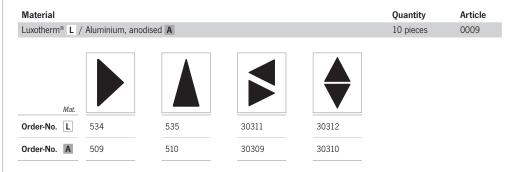
# Scale 1:1

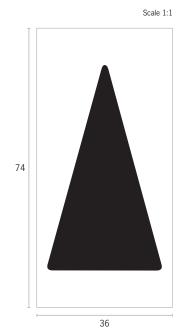
36

#### GS GHS pictograms



#### Flow direction arrows





# Pipe Labelling - Stickers and Tapes



Proper pipe identification not only poses fewer potential risks for your employees, but it also facilitates repair and maintenance work in industrial plants and power stations.

With our product range and know-how, we also provide our customers with the certainty that their labelling meets the requirements of the applicable norm and/or your own company standard.

#### Product overview:

- Pipe markers cost-effective solution for pipes with a small labelling area
- Colour tape individually labelling of pipes according to the fluid conveyed
- Arrow tape individually labelling of pipes according to the flow direction
- Text tape readable from all sides because they are completely wrapped around the pipe
- **GHS tape** for labelling hazardous substances in accordance with the GHS regulation

You can of course also label your pipes with the array of products from the slide-in system or printed and engraved signs. Contact us – we will gladly find the best solution for you.

#### Specifics of our Pipe Markers and Tapes:

- Flame-resistant
- Self-extinguishing
- Extreme adhesive power
- Mostly resistant against acid and alkaline substances
- UV resistant
- Can be applied at temperatures of 5°C to 45°C
- Resistant to temperatures of -20  $^{\circ}\text{C}$  to -110  $^{\circ}\text{C}$
- Mostly solvent resistant
- Weather-proof





#### Pipe markers

Material	Temperature resistance	Quantity
Foil	-20 – 110°C	1 piece

#### DIN 2403

Application	Colour	Additional colour	Text colour
Oxygen	RAL5005	-	RAL9003 (white)
Water	RAL6032	-	RAL9003 (white)
Steam	RAL3001	-	RAL9003 (white)
Air	RAL7004	-	RAL9004
Flammable gases	RAL1003	RAL3001	RAL9004
Non flammable gases	RAL1003	RAL9004	RAL9004
Acids	RAL2010	-	RAL9004
Alkalis	RAL4008	-	RAL9003 (white)
Flammable liquids and fixed materials	RAL8002	RAL3001	RAL9003 (white)
Non flammable liquids and fixed materials	RAL8002	RAL9004	RAL9003 (white)

#### NEN 3050

Application	Colour
Alkalis	RAL4001
Fire fighting	RAL3000
Gases and liquid gases	RAL1004
Air	RAL5012
Oils and flammable liquids	RAL8001
Other liquids	RAL9004
Steam	RAL9006
Water	RAL6010
Acids (based on a recommendation of NWS)	RAL2008

#### Distance of observation

The formula for calculating the distance of observation is: **D** = h x Z

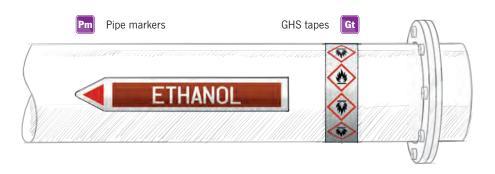
- D = distance of observation in m,
- h = font heigth in mm,
- Z = distance factor: 300 for letters and symbols 40 for safety symbols

#### Dimensions and distance of observation



#### Width

Width x Height (mm)	110 x 18	156 x 25	227 x 37	402 x 52	450 x 73	720 x 116
Font height (mm)	12	17	25	29	50	80
Distance of observation (m)	3,6	5,1	7,5	8,7	15	24





#### Colour tapes

Material	Temperature resistance	Quantity	Article
Foil	-20 - 110°C	1 piece	0004

#### DIN 2403

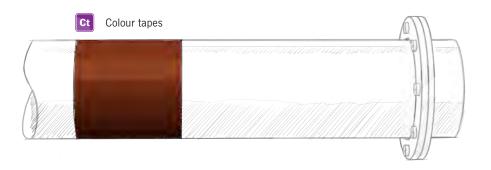
Width x Length	Application	Colour	
B x 25 m	Oxygen	RAL5005	
B x 25 m	Water	RAL6032	
B x 25 m	Steam	RAL3001	
B x 25 m	Air	RAL7004	
B x 25 m	Gases	RAL1003	
B x 25 m	Acids	RAL2010	
B x 25 m	Alkalis	RAL4008	
B x 25 m	Liquids and fixed materials	RAL8002	
B x 25 m	Fire fighting water	RAL3001	RAL6032
B x 25 m	Fire fighting gas	RAL3001	RAL1003
B x 25 m	Fire fighting steam	RAL3001	RAL3001
B x 25 m	Fire fighting others	RAL3001	RAL9004

	B = 35 mm	<b>B</b> = 75 mm	<b>B</b> = 150 mm
Order-No.	903	915	927
Order-No.	904	916	928
Order-No.	905	917	929
Order-No.	906	918	930
Order-No.	907	919	931
Order-No.	908	920	932
Order-No.	909	921	933
Order-No.	910	922	934
Order-No.	911	923	935
Order-No.	912	924	936
Order-No.	913	925	937
Order-No.	914	926	938

#### NEN 3050

Width x Length	Application	Colour
<b>B</b> x 25 m	Alkalis	RAL4001
<b>B</b> x 25 m	Fire fighting	RAL3000
<b>B</b> x 25 m	Gases and liquid gases	RAL1004
B x 25 m	Air	RAL5012
B x 25 m	Oils and flammable liquids	RAL8001
B x 25 m	Other liquids	RAL9004
B x 25 m	Steam	RAL9006
B x 25 m	Water	RAL6010
B x 25	Acids (recommendation of NWS)	RAL2008

	<b>B</b> = 35 mm	<b>B</b> = 75 mm	<b>B</b> = 150 mm
Order-No.	939	948	957
Order-No.	940	949	958
Order-No.	941	950	959
Order-No.	942	951	960
Order-No.	943	952	961
Order-No.	944	953	962
Order-No.	945	954	963
Order-No.	946	955	964
Order-No.	947	956	965







#### Arrow tapes

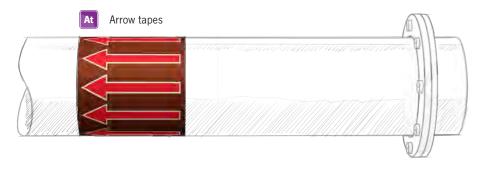
Material	Temperature resistance	Quantity	Article
Foil	-20 – 110°C	1 piece	0006

#### DIN 2403

Width x Length	Application	Colour	Arrow colour		<b>B</b> = 35 mm	<b>B</b> = 75 mm	<b>B</b> = 150 mm
<b>B</b> x 25 m	Oxygen	RAL5005	$\rightarrow$	Order-No.	811	831	851
B x 25 m	Water	RAL6032	<b>-</b>	Order-No.	812	832	852
B x 25 m	Steam	RAL3001	$\rightarrow$	Order-No.	813	833	853
B x 25 m	Air	RAL7004	$\rightarrow$	Order-No.	814	834	854
<b>B</b> x 25 m	Flammable gases	RAL1003	$\Longrightarrow$	Order-No.	815	835	855
B x 25 m	Non flammable gases		$\rightarrow$	Order-No.	816	836	856
B x 25 m	Acids	RAL2010	<b>→</b>	Order-No.	817	837	857
B x 25 m	Alkalis	RAL4008	$\rightarrow$	Order-No.	818	838	858
B x 25 m	Flammable liquids and fixed materials	RAL8002	$\implies$	Order-No.	819	839	859
<b>B</b> x 25 m	Non flammable liquids and fixed materials	RAL8002	$\Longrightarrow$	Order-No.	820	840	860
B x 25 m	Direction	No colour	$\rightarrow$	Order-No.	821	841	861
B x 25 m	Direction	No colour	$\rightarrow$	Order-No.	35281	35282	35283

#### NEN 3050

Width x Length	Application	Colour	Arrow colour		<b>B</b> = 35 mm	<b>B</b> = 75 mm	<b>B</b> = 150 mm
B x 25 m	Alkalis	RAL4001	$\rightarrow$	Order-No.	822	842	862
B x 25 m	Fire fighting	RAL3000	$\rightarrow$	Order-No.	823	843	863
B x 25 m	Gases and liquid gases	RAL1004	$\rightarrow$	Order-No.	824	844	864
B x 25 m	Air	RAL5012	<b>-</b>	Order-No.	825	845	865
B x 25 m	Oils and flammable liquids	RAL8001	$\rightarrow$	Order-No.	826	846	866
B x 25 m	Other liquids	RAL9004	<b>-</b>	Order-No.	827	847	867
B x 25 m	Steam	RAL9006	$\rightarrow$	Order-No.	828	848	868
B x 25 m	Water	RAL6010	<b>-</b>	Order-No.	829	849	869
B x 25 m	Acids (recommendation of NWS)	RAL2008	<b>→</b>	Order-No.	830	850	870





#### Text tapes

Material	Temperature resistance	Quantity
Foil	-20 – 110°C	1 piece

#### DIN 2403

Width x Length	Application	Colour	<b>B</b> = 35 mm	<b>B</b> = 75 mm	<b>B</b> = 150 mm
B x 25 m	Oxygen	RAL5005			
B x 25 m	Water	RAL6032			
B x 25 m	Steam	RAL3001		All prices on request	All prices on request
B x 25 m	Air	RAL7004			
B x 25 m	Flammable gases	RAL1003			
B x 25 m	Non flammable gases	RAL1003	All prices on request		
B x 25 m	Acids	RAL2010			
B x 25 m	Alkalis	RAL4008			
B x 25 m	Flammable liquids and fixed materials	RAL8002			
B x 25 m	Non flammable liquids and fixed materials	RAL8002			
B x 25 m	Direction	No colour			

#### NEN 3050

Widt x Length	Application	Colour	<b>B</b> = 35 mm	<b>B</b> = 75 mm	<b>B</b> = 150 mm					
B x 25 m	Alkalis	RAL4001								
B x 25 m	Fire fighting	RAL3000		All prices on request request						
B x 25 m	Gases and liquid gases	RAL1004								
B x 25 m	Air	RAL5012								
B x 25 m	Oils and flammable liquids	RAL8001	All prices on request			All prices on request				
B x 25 m	Other liquids	RAL9004	,				roquoot			
B x 25 m	Steam	RAL9006								
B x 25 m	Water	RAL6010								
B x 25 m	Acids (recommendation of NWS)	RAL2008								







#### **GHS** tapes







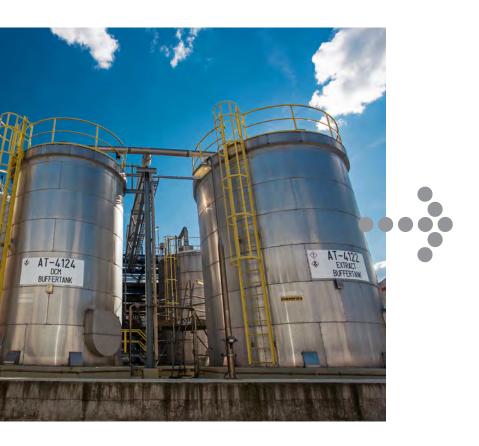
#### Module system and adhesive film stickers

Our module system allows for flexible combinations of all pipe labelling stickers and tapes. You can combine different pipe labelling variants (colour, arrow and GHS tapes) and complement with an adhesive film sticker. The size of this, sticker showing the actual name of the substance within the pipe, can be adjusted individually. The height of the font is determined according to available place and diameter of the pipe and requested distance of observation in order to ensure the readability of the information even from great distance.





# Tank Labelling



Tanks containing hazardous substances must be labelled in order to ensure correct identification of the contents. The information must be mounted in a clearly visible, safe and durable manner. On the one hand, this aids in the work of your responsible employees, and on the other, easy-to-read and quickly comprehensible labels facilitate the tasks that fire brigades and rescue workers perform in emergency situations.

Using various designs, we adapt the labelling to suit your situation on site. As a rule, flexible basic materials or films are printed in combination with the desired information on the tanks' contents and the necessary hazard indicators. In doing so, the size of the labelling should be adapted not only to the on-site conditions and installation location, but also to the bend in the base area and the desired observations distance. In India, it is mandatory to label and tanks with GHS pictograms. In addition, some tanks are

furnished with hazardous diamonds or safety and identification numbers according to their hazard class, displaying the relevant hazards. Furthermore, information about volume, inner pressure or a numeric order might be required. We are prepared to address you individual needs regarding contents, manufacturing and fastening.



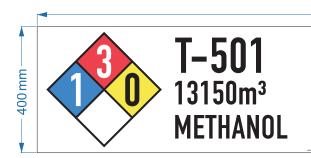
#### NFPA 704 Hazard Diamond

#### Standard System for the Identification of the Hazard of Materials for Emergency Response

In case of accidents involving hazardous substances, the hazard diamond helps safety and rescue forces to immediately evaluate possible dangers. The hazard diamond shows four coloured fields: blue for safety hazards, red for flammability, yellow for instable substances and a white field at the bottom for specific warning information.

Health	ı Hazard
0	Poses no health hazard
1	Minor hazard   breathing apparatus recommended
2	Dangerous   Wear light protective clothing and breathing apparatus in danger zone
3	Very dangerous   Wear full protective clothing and breathing apparatus in danger zone
4	Can be lethal   Avoid any contact with vapours or liquids without suitable protective equipment
Flamn	nability
0	Materials will not burn under typical conditions
1	Materials require considerable preheating before ignition/ combustion can occur
2	Materials must be moderately heated before ignition can occur
3	Materials can be ignited under almost all ambient temperature
4	Materials will burn readily at normal temperatures
Instab	ility
0	Normally stable
1	Can become unstable at elevated temperatures   Protection measures required
2	Violent chemical reaction possible; advanced protection measures required; execute fire-fighting only from safe distance
3	Capable of detonation or explosive decomposition when heated or severely shocked; establish a safety zone; execute fire-fighting only from safe distance
4	Readily capable of detonation or explosive decomposition; establish a safety zone; evacuate area in case of fire
(empty)	Use water as extinguishing agent
W	Do not use water as extinguishing agent
ОХ	Oxidizer, chemicals burn without air supply
ACID	Strong acid
ALK	Strong base
COR	Strong corrosive
BIO	Biological hazard
4,4	Radioactive hazard



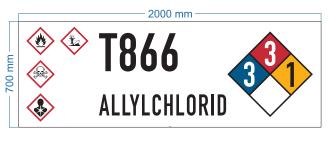


2000 mm -





336 1230







70 m<sup>3</sup>



# Pre-Labelling

Pre-labelling tags make things easier for both you and us. They are installed as temporary labels in the plant during construction and renovation works and are then replaced by the significantly more durable and uniformly recognisable plant labelling upon the launch of plant operations or thereafter. For this temporary application, we offer you a good price-performance ratio with regard to durability, ease of use and cost.



#### **Pre-labelling**

Material		(	Quantity	Aı	rticle
Plastic K / Painted steel sheet S			100 pieces	00	010
Width x Height	Colour		Mat.	Mat.	
120 x 65	white	Order-No.	<b>K</b> 271	S	277
120 x 65	red	Order-No.	<b>K</b> 272	S	278
120 x 65	yellow	Order-No.	<b>K</b> 273	S	279
120 x 65	green	Order-No.	<b>K</b> 274	S	280
120 x 65	blue	Order-No.	<b>K</b> 275	S	-
120 x 65	orange	Order-No.	<b>K</b> 276	S	-



#### Seals

Material		Quantity	Article
Lead		1 piece	0019
Application	Quantity		
			14505
For seals wire	1 piece	Order-No.	14505



#### Seal wire

Material			Quai	ntity	Article
Galvanized steel S / Stainless steel E			100	pieces	0020
Length	Application		Mat.		Mat.
230 mm	Pre-labelling	Order-No	S	101	<b>E</b> 100



# Fastening and Accessories

In order for a sign to aid in providing comprehension, safety and orientation, it must be properly installed. Our fastening products therefore offer the right solution for each of our plant labelling systems. Tried, tested and durable, the different sizes and types of signs can be fastened to the necessary installation points in a clearly visible manner.

Our sign-bracket, which comes in various designs, serves as the base. It matches the sizes and perforations of our original Stell "Stecksystem", the slide-in system and the standardised dimensions of the engraved and printed signs. The sign-bracket is fixed with our hose clamp, which allows for reliable labelling that is gentle on the object to which it is attached. Our range is broadened by additional fastenings and fastening accessories. For further questions regarding our products our sales team is always at your disposal.



#### Sign bracket

Materia Aluminiu		/ Stainlass	ctoo	I E						Quai			rticle
AIUIMINIL	ani Anvig 3 F	/ Stainless	siee	E						1 pie	ce	0	015
Height	Length		Mat.		Mat.		Height	Length		Mat.		Mat.	
	52 mm	Order-No.	Α	19924	E	19895		52 mm	Order-No.	Α	21371	E	2041
	70 mm	Order-No.	Α	181	E	197		70 mm	Order-No.	Α	187	E	203
	88 mm	Order-No.	Α	182	E	198		88 mm	Order-No.	Α	188	E	204
	106 mm	Order-No.	Α	183	Ε	199		106 mm	Order-No.	Α	189	E	205
	124 mm	Order-No.	Α	184	Ε	200		124 mm	Order-No.	Α	190	E	206
	142 mm	Order-No.	Α	185	E	201		142 mm	Order-No.	Α	191	E	207
18 mm	160 mm	Order-No.	Α	186	E	202	29 mm	160 mm	Order-No.	Α	192	E	208
	178 mm	Order-No.	Α	123	E	152		178 mm	Order-No.	Α	129	E	158
	196 mm	Order-No.	Α	124	E	153		196 mm	Order-No.	Α	130	E	159
	214 mm	Order-No.	Α	125	E	154		214 mm	Order-No.	Α	131	E	160
	232 mm	Order-No.	Α	126	E	155		232 mm	Order-No.	Α	132	E	161
	250 mm	Order-No.	Α	127	E	156		250 mm	Order-No.	Α	133	E	162
	268 mm	Order-No.	Α	128	E	157		268 mm	Order-No.	Α	134	E	163
Height	Length		Mat.		Mat.		Height	Length		Mat.		Mat.	
	88 mm	Order-No.	Α	135	Ε	164		88 mm	Order-No.	Α	6775	Е	6776
	106 mm	Order-No.	Α	136	Ε	165		106 mm	Order-No.	Α	193	Ε	209
	124 mm	Order-No.	Α	137	E	166		124 mm	Order-No.	Α	194	E	210
	142 mm	Order-No.	Α	138	E	167		142 mm	Order-No.	Α	195	E	211
	160 mm	Order-No.	Α	139	Ε	168		160 mm	Order-No.	Α	196	E	212
40 mm	178 mm	Order-No.	Α	140	Ε	169	49 mm	178 mm	Order-No.	Α	146	E	175
	196 mm	Order-No.	Α	141	Ε	170		196 mm	Order-No.	Α	147	Ε	176
	214 mm	Order-No.	Α	142	E	171		214 mm	Order-No.	Α	148	E	177
	232 mm	Order-No.	Α	143	Ε	172		232 mm	Order-No.	Α	149	Ε	178
	250 mm	Order-No.	Α	144	Ε	173		250 mm	Order-No.	Α	150	Ε	179
	268 mm	Order-No.	Α	145	Е	174		268 mm	Order-No.	Α	151	Ε	180



# Pc Pipe clamp

Material		Quantity	Article
Stainless steel E		25 pieces	0012
Width	Range		Mat.
	Ø 08 - 12 mm	Order-No.	<b>E</b> 243
	Ø 10 - 16 mm	Order-No.	<b>E</b> 244
	Ø 12 - 20 mm	Order-No.	<b>E</b> 245
	Ø 16 - 25 mm	Order-No.	<b>E</b> 246
	Ø 20 - 32 mm	Order-No.	<b>E</b> 247
	Ø 25 - 40 mm	Order-No.	<b>E</b> 248
	Ø 32 - 50 mm	Order-No.	<b>E</b> 249
	Ø 40 - 60 mm	Order-No.	<b>E</b> 250
	Ø 50 - 70 mm	Order-No.	<b>E</b> 251
	Ø 60 - 80 mm	Order-No.	<b>E</b> 252
	Ø 70 - 90 mm	Order-No.	<b>E</b> 253
9 mm	Ø 80 - 100 mm	Order-No.	<b>E</b> 254
9 111111	Ø 90 - 110 mm	Order-No.	<b>E</b> 255
	Ø 100 - 120 mm	Order-No.	<b>E</b> 256
	Ø 110 - 130 mm	Order-No.	<b>E</b> 257
	Ø 130 - 150 mm	Order-No.	<b>E</b> 258
	Ø 150 - 170 mm	Order-No.	<b>E</b> 259
	Ø 170 - 190 mm	Order-No.	<b>E</b> 260
	Ø 190 - 210 mm	Order-No.	<b>E</b> 261
	Ø 210 - 230 mm	Order-No.	<b>E</b> 262
	Ø 230 - 250 mm	Order-No.	<b>E</b> 263
	Ø 250 - 270 mm	Order-No.	<b>E</b> 264
	Ø 270 - 290 mm	Order-No.	<b>E</b> 3211
	Ø 290 - 310 mm	Order-No.	<b>E</b> 265
	Ø 310 - 330 mm	Order-No.	<b>E</b> 3211



#### Cable ties

Width x Length         25 Stür           2,5 x 100 mm         Order-No.           2,5 x 202 mm         Order-No.           4,8 x 370 mm         Order-No.           9 x 430 mm         Order-No.	y Article
2,5 x 100 mm       Order-No.         2,5 x 202 mm       Order-No.         4,8 x 370 mm       Order-No.	k 0011
2,5 x 202 mm       Order-No.         4,8 x 370 mm       Order-No.	
4,8 x 370 mm <b>Order-No.</b>	266
<u> </u>	267
9 x 430 mm Order-No.	33844
	268
9 x 812 mm <b>Order-No.</b>	269
9 x 1070 mm <b>Order-No.</b>	270





#### Adhesive foam tape

Material		Qı	uantity	Article
Polyethylene foam		1	piece	0021
Width	Application		Length 10 m	Length 50 m
9 mm, perforated	45 series	Order-No.	89	-
19 mm, perforated	6/9 series	Order-No.	90	-
38 mm	18 series	Order-No.	92	6856
58 mm	27 series	Order-No.	6858	98
78 mm	36 series	Order-No.	6859	99



#### Locks for hanger strap

Material	Quantity	Article
Polyamide P / Galvanized steel S / Stainless steel E	25 pieces	0014
Application		Mat.
For 8 mm smoothed polyamide band	Order-No.	<b>P</b> 218
For 9 mm embossed steel band	Order-No.	<b>S</b> 214
For 7 mm embossed inox band	Order-No.	<b>E</b> 213
For 9 mm embossed inox band	Order-No.	<b>E</b> 215



#### Hanger strap

Material		Quantity	Article
Galvanized steel S / Stainless	steel E / Polyamide P	1 piece	0013
Width x Length	Design		Mat.
9 mm x 30 m	Embossed	Order-No.	<b>S</b> 220
7 mm x 25 m	Embossed	Order-No.	<b>E</b> 219
9 mm x 30 m	Embossed	Order-No.	<b>E</b> 221
8 mm x 50 m	Smooth	Order-No.	<b>P</b> 223



#### Steel band, PVC coated

Material			Quantity		Article
Galvanized steel S / Stainless steel	E		1 piece		0022
Diameter	Design		1 m	100 m	125 m
a 0	Steel/Plastic	Order-No.	14529	87	-
Ø 2 mm	Stainless steel/Plastic	Order-No.	14531	-	47510



#### Seals

Material		Quantity	Article
Aluminium AIMg 3 A / Stainless steel	E	1 piece	0019
Application	Quantity		Mat.
For coated steel and coated stainless steel band	1 piece	Order-No.	<b>A</b> 14507
For ball chains	1 piece	Order-No.	<b>E</b> 14508



#### **Br** Blind rivets

Material				Quantity	Article
Aluminium A /	Plastic K / Stainless steel E			500 pieces	0018
Width x Height	Application	Material sleeve	Material pen		Mat.
3,0 x 4,5 mm	For bondings	Plastic	Plastic	Order-No.	<b>K</b> / <b>K</b> 109
3,0 x 5,5 mm	For direct riveting	Flastic	Flastic	Order-No.	<b>K</b> / <b>K</b> 116
3,0 x 4,0 mm	For bondings	Aluminium	Stainless steel	Order-No.	A / E 106
3,2 x 7,9 mm	For direct riveting	Aluminium	Stainless steel	Order-No.	A / E 110



#### Bar holder

Material		Quantity	Article
Aluminium AIMg 3 A / Stainle	ess steel E	10 pieces	0023
Width x Length	Hole	Mat.	Mat.
	Ø 8,5 mm	Order-No. A 82	<b>E</b> 77
	Ø 10,5 mm	Order-No. A 83	<b>E</b> 78
30 x 110 mm	Ø 12,5 mm	Order-No. A 84	<b>E</b> 79
	Ø 16,5 mm	Order-No. A 85	<b>E</b> 80
	Ø 20,5 mm	Order-No. A 86	<b>E</b> 81
30 x 120 mm	open	Order-No. A 11114	<b>E</b> 11113





# Fastening cubes

Material		Quantity	Article
Aluminium A / Stainless steel E		20 pieces	0017
Width x Height x Depth	Application	Mat.	Mat.
15 x 15 x 15 mm	For pipe marking	<b>Order-No. A</b> 117	<b>E</b> 118



# Keyrings

Material		Quar	ntity	Α	rticle
Steel nickel-plated S / Stainless steel E		1 pie	ce	0	104
Diameter		Mat.		Mat.	
Ø 20,4 mm	Order-No.	S	18525	E	18524



#### **Ball Chain**

Material	Quantity	Article
Stainless steel	1 piece	0022
Diameter x Length		
Ø 2 mm x 15 cm	Order-No.	14526
Ø 2 mm x 1 m	Order-No.	14527
Ø 2 mm x 50 m	Order-No.	14528



#### Link Chain

Material	Quantity	Article
Steel nickel-plated S /Stainless steel E	1 piece	0022
Diameter x Length	Mat.	Mat.
Ø 8 mm x 1 m	<b>Order-No. S</b> 30233	<b>E</b> 30232



#### Rivet gun

	Quantity	/ Article
	1 Stück	0091
Application		
For all riveting work	Order-No.	6770



#### Remove rivet gun

	Quantity	Article
	1 piece	0091
Application		
Application		
For loosening of riveted joints	Order-No.	5455



#### Tool for tension / cutting

	Quantity	Article
	1 piece	0091
Application		
For processing the polyamide hanger strap	Order-No.	5674



# Cartridge skeleton gun

	Qu	antity Articl	le
	1 p	iece 0091	
Application			
For adhesives and sealants from the cartridge	Order-No.	5456	



#### Tube of glue

			Quantity	Article
			1 piece	0091
Design	Application			
Cartridge, 310 ml	For the assembly of signs, transparent	Order-No.		47477





# Cleaner Spray

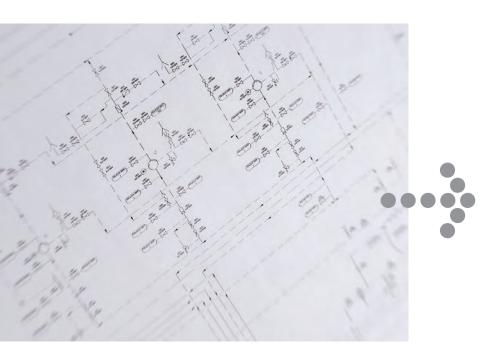
		Quantity	Article
		1 piece	0091
Design	Application		
Spray can, 500 ml	For degreasing metallic surfaces, glass and ceramics (check suitability before use)	Order-No.	33847



#### Surface cleaner

		Quantity	Article
		1 piece	0091
Design	Application		
Spray can, 500 ml	For cleaning heavily soiled surfaces	Order-No.	33848

# Plans for Process Engineering



When it comes to plant labelling, our business approach also includes the documentation of our work and your plant. If desired, we can work with our in-house CAD department to prepare your identification System for Power Stations (KKS) according to the latest revision. Complete and current documentation give you the security you need for plant operation. By using a complete historical reproduction of changes in the plant as well as the documentation of the current situation, operational safety can be increased in accident and emergency situations.

Our employees will compare existing P&IDs with the current state (as-built-check) in the plant. This way, missing components can be supplemented, components that have been dismantled (e.g. as a result of renovation) can be removed and missing data can be gathered for your database. The documentation then depicts the actual condition of your plant and, using the revised P&IDs, we can assign both the quantity structures and texts (in coordination with the client) for your labelling. Our highly-qualified CAD department will then deliver the plans to you in file format; the desired attributes and digital information from AutoCAD P&ID are included.

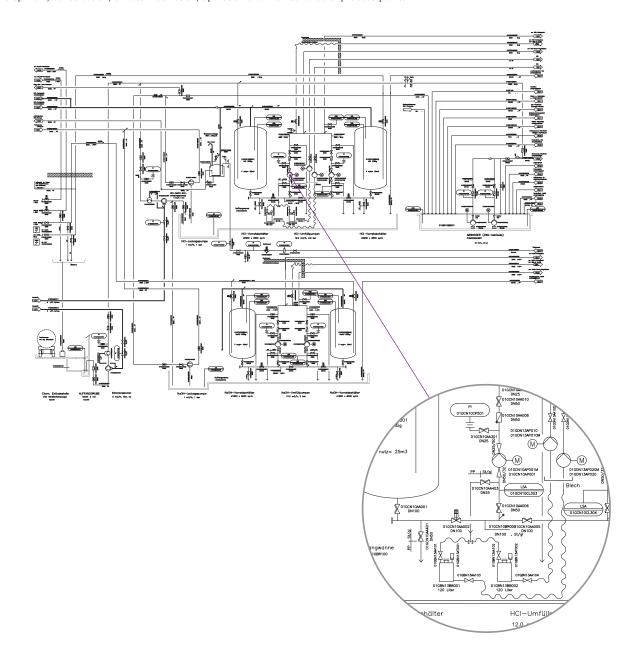
#### We offer the following services:

- On-site inventory audit (as-built-check) including demand assessment
- P&iD preparation that considers the relevant standards and laws
- Determining quantity structures and batch sizes for the different sign variants
- Preparing specifications for the labelling
- Assigning and coding the equipment according to identification Systems for Power Stations (KKS) and plant labelling systems
- Preparing text and sign lists, including colour coding
- Plotting / printing the plans



#### Piping and Instrumentation Diagrams (in accordance with DIN EN ISO 10628)

The Piping and Instrumentation Diagram is used to display a plant's technical equipment. The plans show the structure and function of process plants and are part of the complete technical documentation that is necessary for the planning, construction, on-site installation, administration, commissioning, operation, maintenance and decommissioning of a plant. They also aid in the exchange of information between those involved in the development, construction, on-site installation, operation and maintenance of process plants.

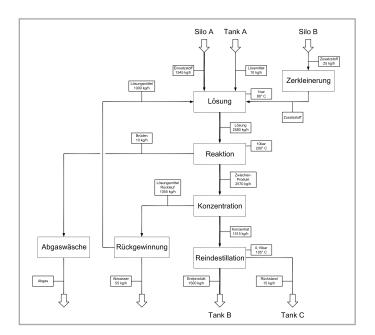


#### Pipe layout diagram

A pipe layout diagram is a simplified representation of a plant that is not to scale. The diagram mainly marks the vertical pipes and all required safety and control technology fittings, as well as shut-off devices. The pipe layout diagram can serve as the basis for pipe dimensioning. In the planning phase, it can be somewhat of a common thread for the intended material flows.

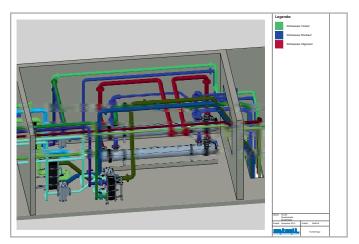
#### **Block diagrams**

The diagrams graphically represent the effects between numerous interacting components. A process or process plant is thus depicted in simplified form with the aid of rectangles that are connected by flow lines (e.g., substances, energies, energy carriers).



#### Pipe plans

Technical drawings for the planning and construction of pipes in large chemical industry plants. Pipe plans map the course of pipes and fittings as a top view in existing installation plans.



#### Designs

Upon completion of our work, we give you a data medium that contains the digital documentation of the plans in the desired file format. You of course also have the option to use the printing and plotter service. This includes, amongst others, multi-colour printing, standard formats up to DIN AO, photoluminescent plots, and lamination in various sizes.



# Safety Identification

←2 ← 1 %	Introduction	76
	Safety Way Guidance System	78
4 st	Luxolight® Slide-in strips , Flat profiles, Sloped profiles	80
# DE	End caps, Transparent escape route signs	81
\ /	Additions to Safety Way Guidance System	82
1	Transparent photomluninescent adhesive foil, Exit door handle markings	82
į	Photoluminescent adhesive tape, Stairway-angles, Floor marking points	83
TIX	Safety Signs	84
100	Escape route, emergency equipment and safety action signs	85
TORE SOME	Fire fighting equipment signs	88
CAMITS STATE	Prohibition signs	90
	Warning signs	92
	Mandatory action signs	94
	Floor marking (antislipping)	96
	Safety Markings for Obstacles and Hazardous Areas Marking tapes	97 97
	Floor Marking Tapes and Anti-Slip Tapes	98
	Flor marking tapes	98
	Anti-slip tape, general purpose	99
	Anti-slip tape, easy clean	100
	Anti-slip tape, verformbar	100
	Knuffi® Warning and Protection Profiles	101
	Corner protection	101
	Edge protection, Pipe protection	102
	Surface protection	103
ich und Reiturg	Plans for Safety Identification	104
Und la	Escape plans	105
The same of the sa	Installation plans	106
The state of the s	Fire safety regulation	106
The state of the s	Designs	106
	Fastening and Accessories	107

## Introduction



Clear communication regarding hazards and rules of conduct serves as the basis for a safe working environment. Chemical parks, power stations, production plants and business premises must therefore be equipped with systematic labelling for emergency situations and day-to-day operations alike. Safety identification includes labelling of escape routes and fire protection equipment, identifying hazardous areas and how to conduct oneself in them, marking obstacles and potential hazards and putting up escape and rescue plans.

To successfully implement a safe working environment, the right planning, labelling selection and proper on-site installation is key. We offer all of this as a complete package. In our work, we focus on transmitting clear-cut messages. That's why dimensions, shape, colour, design, distance of observation and luminescence of the labels are based on prescribed standards and decades of experience. In collaborating with you, we aim to provide a sustainable solution for reliable safety identification, thus avoiding accidents, injuries and damage. Thanks to our in-house production, we can meet your requirements; what's more is that if you like, we can efficiently carry out (almost) all the relevant work for you on your premises.

## Compulsory labelling and its implementation – regulations, standards and laws

Occupational safety identification is globally ubiquitous, compulsory by law, and derived from the Occupational Health and Safety Act. Labelling with signs is specifically listed as an integral part of the legal measures.

International regulations and standards for safety identification. The current safety signs in have already been adapted to the international standard ISO 7010. If you would like qualified consultation, please do not hesitate to call us.

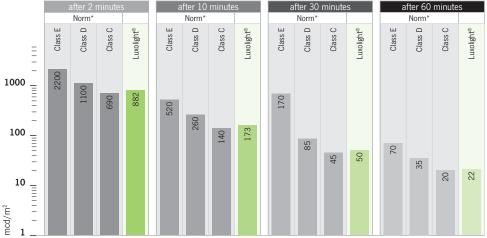


#### Luxolight®

Photoluminescent labelling is considered to be particularly important, as even in the event of a power failure or smoke development, it provides a reliable means of orientation. Luxolight® is a registered trademark and represents all of our photoluminescent products. They meet high quality requirements and aid in making your working environment safe. Our Luxolight® products absorb the energy of UV rays from the ambient lighting, store it, and then emit it as yellow-green light when it's dark. Depending on the environment, varying degrees of photoluminescence may be necessary – we can offer you reliable advice about this. Our standardised Luxolight® products are delivered in C Quality from stock according to DIN 67510-1:2020 and meet the requirements of the relevant standards. Other Qualities upon request.

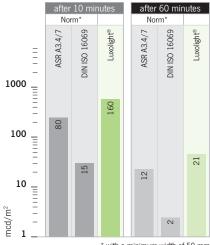
The following chart describes the luminous qualities of Luxolight® as well as the specifications of ASR A3.4/7:2019 and ISO 16069:2018 at the place of use.

#### **Luminance for Safety Signs**



\* DIN 67510-1:2020 und ISO 17398:2004

#### **Luminance for Safety Way Guidance System**



 $^{\ast}$  with a minimum width of 50 mm

# Safety Way Guidance System



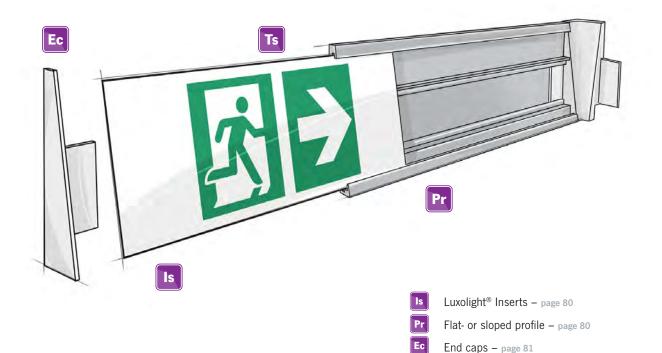
An installed safety way guidance system serves as an important protective measure should evacuation be necessary. As part of the safety concept or in consequence of a risk assessment, workplaces and places with increased risk potential must be equipped for emergency with an optical safety way guidance system that directs those affected to a safe environment or meeting points.

A safety way guidance system enables those affected to leave the premises safely and quickly - even in the event of heavy smoke and power failure. For the safety way guidance system we offer different photoluminescence qualities and installation heights that match the symbols that are mounted up above.

on-site conditions. Thanks to the optical markings and direction indicators, all of these solutions provide for a seamless and reliable escape route. Nevertheless, they are not a substitute for the required rescue

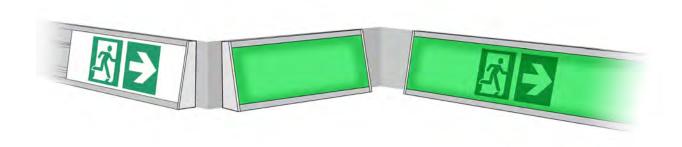


Transparent escape route signs - page 81



### Components of the Safety Way Guidance System

The Safety Way Guidance System consists of the inserts (Is), the profile (Pr), the transparent safety sign (Ts) and end caps (Ec). We will gladly assist you determining the right components and materials that suit your demands.





## Luxolight® inserts

Material	Luminance	Quantity	Article
PVC	Luxolight®	1 piece	0025
Width x Length	Application		
WIGHT X Lengur	Аррисации		
35 x 996 mm	for profile 40 mm	Order-No.	5032
54 x 996 mm	for profile 60 mm	Order-No.	5033
75 x 996 mm	for profile 80 mm	Order-No.	5034



### Pr Flat profile

Material	Quantity	Article
Chlorine free plastic K / Aluminium anodized A	1 piece	0027

Width x Length	Application		Mat.
60 x 1000 mm	for inserts 54 x 996 mm	Order-No.	<b>K</b> 5048
	for inserts 54 x 996 mm	Order-No.	<b>A</b> 5045
80 x 1000 mm		Order-No.	<b>K</b> 5049
	for inserts 75 x 996 mm	Order-No.	<b>A</b> 5046

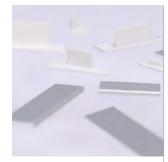


## Sloped profile

Material	Quantity	Article
Aluminium anodized	1 piece	0028
Aluminum anouizeu	1 piece	0026

Width x Length	Application		
60 x 1000 mm	for inserts 54 x 996 mm	Order-No.	5051
80 x 1000 mm	for inserts 75 x 996 mm	Order-No.	5052





### End caps

Material	Quantity	Article
Plastic K / Aluminium anodized A	20 pieces	0026

Width x Length	Application		Mat.	
18 x 54 mm	for flat profile 60 mm	Order-No.	Α	5036
18 x 74 mm	for flat profile 80 mm	Order-No.	Α	5037
12 x 60 mm	for sloped profile 60 mm, left	Order-No.	K	5040
12 x 60 mm	for sloped profile 60 mm, right	Order-No.	K	5041
12 x 80 mm	for sloped profile 80 mm, left	Order-No.	K	5042
12 x 80 mm	for sloped profile 80 mm, right	Order-No.	K	5043



Transparent escape route signs

96 x 48 mm

134 x 67 mm

134 x 67 mm

Material	Quantity	Article
Foil	10 pieces	0029



Order-No. 300 Order-No. 6844 302

303 6845 6846



Width x Height 96 x 48 mm Order-No.

6847

Order-No.

304 6848

# Additions to Safety Way Guidance System



You can supplement your individual safety way guidance system with other useful components. Should circumstances at your site suggest that a safety way guidance system may not be sufficient enough on its own to ensure a path to safety as quickly and simply as possible, the following products are tried and tested completions that are worth considering.



### Transparent photoluminescent adhesive foil

Luminance	Quantity	Article
Luxolight®	1 piece	0035
Application		
for direct adhesion	Order-No.	5071
for direct adhesion	Order-No.	5072
	Luxolight®  Application  for direct adhesion	Luxolight® 1 piece  Application  for direct adhesion Order-No.



### Exit door handle marking

Material	Luminance	Quantity	Article
Foil	Luxolight®	1 piece	0037
Width x Height	Design		
80 x 200 mm	with direction arrow left	Order-No.	336
80 x 200 mm	with direction arrow right	Order-No.	337





## Stairway angles

Material	Luminance	Quantity	Article
Aluminium	Luxolight®	1 piece	0036
Width x Length	Application		С
35 x 200 mm	for mounting on stairways	Order-No.	333



### Floor marking points, self-adhesive

Material	Luminance	Quantity	Article
Foil	Luxolight®	1 piece	0031
Diameter	Design		
Ø 100 mm	with direction arrow	Order-No.	5061
Ø 200 mm	with direction arrow	Order-No.	5062
Ø 100 mm	without direction arrow	Order-No.	5065
Ø 200 mm	without direction arrow	Order-No.	5066

# Safety Signs



Safety signs are standardised in their message, graphical symbol and safety colours in order to ensure international understanding. Lawful safety and health protection labelling includes rescue, fire protection, prohibitory, mandatory action and warning symbols.

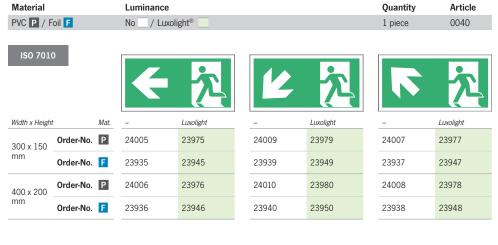
The exact requirements for your working environment are already determined when the escape and rescue plans are drawn up during the workplace's planning phase; they are specified more precisely over the course of regular risk assessments. Our rescue and fire protection symbols are available in standard form or with a photoluminescent background. This is not the case for prohibitory, mandatory action and warning symbols; they are therefore delivered in the standard form on a white background.

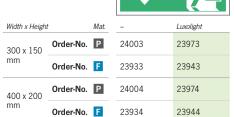






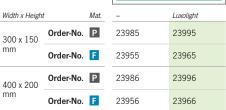
### Escape route signs











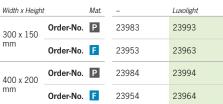


_	Luxolight
23989	23999
23959	23969
23990	24000
23960	23970



-	Luxolight
23987	23997
23957	23967
23988	23998
23958	23968







-	Luxolight
23981	23991
23951	23961
23982	23992
23952	23962



## Escape route, emergency equipment and safety action signs

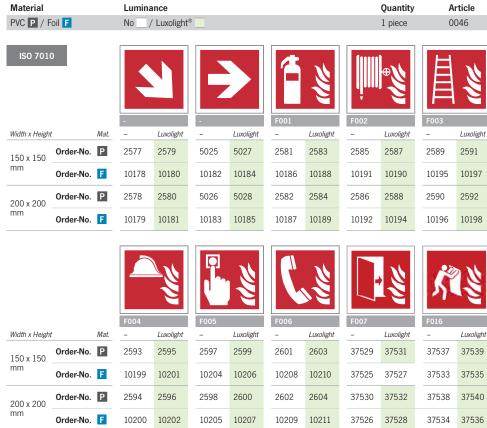
Material			Lumina	nce						Quantity	А	rticle
PVC P / F	oil <mark>F</mark>		No,	/ Luxolight	<b>₹</b> ®					1 piece	0	040
ISO 7010	0						E001	Z	E002	H	E003	
Width x Height	t	Mat.	-	Luxolight	-	Luxolight	-	Luxolight	-	Luxolight	- -	Luxolight
150 x 150	Order-No.	P	358	360	362	364	374	376	378	380	382	384
mm	Order-No.	F	10084	10091	10093	10095	10107	10111	10113	10115	10117	10120
200 x 200	Order-No.	Р	359	361	363	365	375	377	379	381	383	385
mm	Order-No.	F	10090	10092	10094	10096	10108	10112	10114	10116	10118	10121
			E004	+	<b>2 1 1 1 1 1 1 1 1 1 1</b>	. K	E008		E009	*	E010	<b>9</b> <sup>+</sup>
Width x Height	Order-No.	Mat.	386	Luxolight 388	390	Luxolight 393	396	Luxolight 398	400	Luxolight 402	404	Luxolight 406
150 x 150 mm	Order-No.	_	10123	10125	10128	10131	10134	10136	10138	10140	10142	10144
200 v 200	Order-No.	Р	387	389	391	394	397	399	401	403	405	407
200 x 200 mm	Order-No.	F	10124	10126	10129	10132	10135	10137	10139	10141	10143	10145
400 x 400	Order-No.	Р	_	-	392	395	_	_	_	_	_	_
mm	Order-No.	F	-	-	10130	10133	-	-	-	-	-	-
			<b>Q</b>	+		+	]•6	<b>+</b>		<b>I</b>		
Width x Height	t.	Mat.	E011	Luxolight	E012	Luxolight	E013	Luxolight	E015	Luxolight	E016	Luxolight
150 x 150	Order-No.	Р	408	410	412	414	416	418	37441	37443	420	422
mm	Order-No.	F	10146	10148	10150	10152	10154	10157	37437	37439	10159	10161
200 x 200	Order-No.	Р	409	411	413	415	417	419	37442	37444	421	423
mm	Order-No.	F	10147	10149	10151	10153	10155	10158	37438	37440	10160	10162
Width x Height	f	Mat.	E017	Luxolight	E018	Luxolight	E019	Luxolight	D-E019	Luxolight	WSE001	Luxolight
150 x 150	Order-No.	Р	424	426	428	430	432	434	366	368	370	372
mm	Order-No.	F	10163	10167	10169	10171	10173	10175	10098	10101	10103	10105
200 x 200	Order-No.	Р	425	427	429	431	433	435	367	369	371	373
mm	Order-No.	F	10166	10168	10170	10172	10174	10176	10099	10102	10104	10106







### Fire fighting equipment signs











## Prohibition signs

Material					Quantity	Article
PVC					1 piece	0049
ISO 7010		0	K		(X)	
Width x Height		P001	P002	P003	P004	P005
150 x 150 mm	Order-No.	2756	2758	2760	2762	2764
200 x 200 mm	Order-No.	2757	2759	2761	2763	2765
Width x Height 150 x 150 mm	Order-No.	P006 2766	P007	P008	P010	P011
			2768	2770	2772	2774
200 x 200 mm	Order-No.	2767	2769	2771	2773	2775
Width x Height		P012	P013	P014	P015	P017
150 x 150 mm	Order-No.	2776	2778	2780	2782	2784
200 x 200 mm	Order-No.	2777	2779	2781	2783	2785
Width x Height		P018	P019	P020	P021	P022
150 x 150 mm	Order-No.	2786	2788	2790	2792	2794
200 x 200 mm	Order-No.	2787	2789	2791	2793	2795
Width x Height	Out N	P023	P024	P025	P026	P027
150 x 150 mm	Order-No.	2796	2798	2800	2802	2804

200 x 200 mm **Order-No.** 2797





150 x 150 mm **Order-No.** Order-No.

Width x Height

Width x Height

200 x 200 mm

150 x 150 mm **Order-No.** 200 x 200 mm Order-No.

Width x Height 150 x 150 mm **Order-No.** 

200 x 200 mm Order-No.

Width x Height 150 x 150 mm **Order-No.** 

200 x 200 mm **Order-No.** 



## Warning signs

Material					Quantity	Article
PVC					1 piece	0051
ISO 7010						
Width x Height		W001	W002	W003	W004	W005
150 x 150 mm	Order-No.	2940	2942	2944	2946	2948
200 x 200 mm	Order-No.	2941	2943	2945	2947	2949
		Woo6	W007	WOOS	Woop	W010
Width x Height 150 x 150 mm	Order-No.	2950	2952	2954	2956	2958
200 x 200 mm	Order-No.	2951	2953	2955	2957	2959
Width x Height 150 x 150 mm	Order-No.	wo11 2960	wo12 2962	w013	w014 2966	wo15 2968
200 x 200 mm	Order-No.	2961	2963	2965	2967	2969
Width x Height		W016	W017	W018	W019	W020
150 x 150 mm	Order-No.	2970	2972	2974	2976	2978
200 x 200 mm	Order-No.	2971	2973	2975	2977	2979
Width x Height		W021	<b>EX</b> D-W021	W022	D-W022	W023
150 x 150 mm	Order-No.	2980	2998	2982	3000	2984

200 x 200 mm **Order-No.** 











Width x Height

200 x 200 mm

150 x 150 mm **Order-No.** 

Order-No.







Width x Height

150 x 150 mm **Order-No.** 200 x 200 mm **Order-No.**    



Width x Height

150 x 150 mm **Order-No.** 

200 x 200 mm **Order-No.** 

## Mandatory action signs

Material					Quantity	Article
PVC					1 piece	0053
ISO 7010		0				
Width x Height		M001	M002	M003	M004	M005
150 x 150 mm	Order-No.	3124	3126	3128	3130	3132
200 x 200 mm	Order-No.	3125	3127	3129	3131	3133
Width x Height		M006	M007	M008	M009	M010
150 x 150 mm	Order-No.	3134	3136	3138	3140	3142
200 x 200 mm	Order-No.	3135	3137	3139	3141	3143
Width x Height		MO11	M012	M013	M014	M015
150 x 150 mm	Order-No.	3144	3146	3148	3150	3152
200 x 200 mm	Order-No.	3145	3147	3149	3151	3153
Width x Height		M016	M017	M018	M019	M020
150 x 150 mm	Order-No.	3154	3156	3158	3160	3162
200 x 200 mm	Order-No.	3155	3157	3159	3161	3163













Width x Height

Width x Height

200 x 200 mm

150 x 150 mm **Order-No.** 

Order-No.

150 x 150 mm **Order-No.** 200 x 200 mm **Order-No.** 







Width x Height

Width x Height

150 x 150 mm **Order-No.** 200 x 200 mm Order-No.







150 x 150 mm **Order-No.** 

200 x 200 mm **Order-No.** 



### Floor marking (antislipping)

In some cases, safety and health protection labelling might be even more effective if placed on the ground. These self-adhesive sticker signs can be applied directly to the ground but the edges should be sealed in order to avoid premature wear. Our floor signs are slip resistant to prevent slip hazard.







# Safety Markings for Obstacles and Hazardous Areas

Whether for everyday or emergency purposes, labelling obstacles and hazardous areas is an integral part of comprehensive safety identification. A colour design is recommended for day-to-day operations to identify the corresponding potential danger spots. They are used for shelves, floors and edges or other sources of danger with impact, crushing or falling hazards. Our product range is supplemented by marking tapes for marking safe areas as well as mandatory areas.



### Marking tapes

ISO 3864

80 mm x 25 m

80 mm x 25 m

Material	Quantity	Article
Foil	1 piece	0058

Width x Length	Application	Colours		
40 mm x 25 m	permanent danger warning		Order-No.	2746
40 mm x 25 m	temporary danger warning		Order-No.	2740
80 mm x 25 m	permanent danger warning		Order-No.	2747
80 mm x 25 m	temporary danger warning		Order-No.	2741

Width x Length	Application	Colours	
40 mm x 25 m	command signal		Order-No.
40 mm x 25 m	safe situation		Order-No.

command signal

safe situation

Order-No.	2/42
Order-No.	2744
Order-No.	2743
Order-No.	2745

# Floor marking and Anti-Slip tapes

The labelling of passage ways in is mandatory. What's more, due to the frequency and severity of slip accidents floor marking tapes and anti-slip floorings play an increasingly important role within safety and health systems. In the following you can find a selection of products to maintain the safety of your facility and further prevent and reduce these kind of accidents. Anti-slip floorings help to prevent slip accidents on indoor and outdoor surfaces that are slick, slippery, wet and/or soiled by oil or grease. These products might be used for labelling of entrance areas, passageways, walkways, stairs, ascents, ramps, machines, vehicles, kitchen and canteens, terraces, shelters etc.



### Floor marking tapes

Material			Quantity	Article
PVC film			1 piece	0108
Width x Length	Design	Colours		
50 mm x 33 m			Order-No.	36801
75 mm x 33 m	black		Order-No.	36802
50 mm x 33 m	vallavi		Order-No.	36803
75 mm x 33 m	yellow		Order-No.	36804
50 mm x 33 m	blue		Order-No.	36805
75 mm x 33 m	blue		Order-No.	36806
50 mm x 33 m			Order-No.	36807
75 mm x 33 m	red		Order-No.	36808
50 mm x 33 m			Order-No.	36809
75 mm x 33 m	green		Order-No.	36810
50 mm x 33 m	1.		Order-No.	36811
75 mm x 33 m	white		Order-No.	36812
50 mm x 33 m			Order-No.	36813
75 mm x 33 m	orange		Order-No.	36814
50 mm x 33 m			Order-No.	36815
75 mm x 33 m	black/yellow striped		Order-No.	36816
50 mm x 33 m	.,,,,,,,,,		Order-No.	36817
75 mm x 33 m	red/white striped		Order-No.	36818





### Anti-slip tape, general purpose

Material	Slip-prevention	Luminance (after 10 min.)	Quantity	Article
PVC Grit Carrying Web	R 13	No / 150 mcd/m <sup>2</sup>	1 piece	0108
Width x Length	Design	Colours		
50 mm x 18,3 m			Order-No.	36819
75 mm x 18,3 m	black		Order-No.	36820
50 mm x 18,3 m			Order-No.	36821
75 mm x 18,3 m	yellow		Order-No.	36822
50 mm x 18,3 m	white		Order-No.	36823
75 mm x 18,3 m	write		Order-No.	36824
50 mm x 18,3 m	STALL STALL		Order-No.	36825
75 mm x 18,3 m	grey		Order-No.	36826
50 mm x 18,3 m	le le ce		Order-No.	36827
75 mm x 18,3 m	blue		Order-No.	36828
50 mm x 18,3 m			Order-No.	36829
75 mm x 18,3 m	red		Order-No.	36830
50 mm x 18,3 m			Order-No.	36831
75 mm x 18,3 m	green		Order-No.	36832
50 mm x 18,3 m	brown		Order-No.	36833
75 mm x 18,3 m	brown		Order-No.	36834
50 mm x 18,3 m	blook (vallous striped		Order-No.	36835
75 mm x 18,3 m	black/yellow striped		Order-No.	36836
50 mm x 18,3 m			Order-No.	36837
75 mm x 18,3 m	red/white striped		Order-No.	36838
50 mm x 18,3 m	luminanar <sup>+</sup>		Order-No.	36839
100 mm x 18,3 m	luminescent		Order-No.	36840
50 mm x 18,3 m	block/luminassant at-i		Order-No.	36841
100 mm x 18,3 m	black/luminescent striped		Order-No.	36842
50 mm x 18,3 m	block outro atrons		Order-No.	36867
75 mm x 18,3 m	black - extra strong		Order-No.	36868



## Anti-slip tape, easy clean

Material	Slip-prevention		Quantity	Article
PVC Grit Carrying Web	R 10		1 piece	0108
Width x Length	Design	Colours		
50 mm x 18,3 m	blada		Order-No.	36843
100 mm x 18,3 m	black		Order-No.	36844
50 mm x 18,3 m			Order-No.	36845
100 mm x 18,3 m	yellow		Order-No.	36846
50 mm x 18,3 m			Order-No.	36847
100 mm x 18,3 m	clear		Order-No.	36848
50 mm x 18,3 m			Order-No.	36849
100 mm x 18,3 m	grey		Order-No.	36850
50 mm x 18,3 m			Order-No.	36851
100 mm x 18,3 m	blue		Order-No.	36852
50 mm x 18,3 m			Order-No.	36853
100 mm x 18,3 m	red		Order-No.	36854
50 mm x 18,3 m			Order-No.	36855
100 mm x 18,3 m	green		Order-No.	36856
50 mm x 18,3 m			Order-No.	36857
100 mm x 18,3 m	white		Order-No.	36858
50 mm x 18,3 m			Order-No.	36859
100 mm x 18,3 m	black/yellow		Order-No.	36860



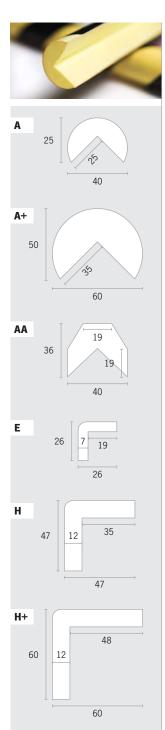
### Anti-slip tape, coarse grade

Material	Slip-prevention		Quantity	Article
Aluminium	R 13		1 piece	0108
Width x Length	Design	Colours		
50 mm x 18,3 m	black		Order-No.	36861
100 mm x 18,3 m	DIACK		Order-No.	36862
50 mm x 18,3 m	yellow		Order-No.	36863
100 mm x 18,3 m	yellow		Order-No.	36864
50 mm x 18,3 m	black/yellow striped		Order-No.	36865
100 mm x 18,3 m	black/yellow surped		Order-No.	36866
50 mm x 18,3 m	black/coarse conformable		Order-No.	36869
100 mm x 18,3 m	blacky coarse collornable		Order-No.	36870



# Knuffi® Warning and Protection Profiles

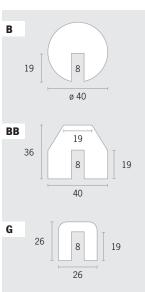
Warning and protection profiles effectively prevent impact injuries. Due to their striking colour, they caution you about the threat of collisions. Knuffi® products are made from flexible polyurethane foam using a patented process. They provide a visual warning through the specific colours and the material absorbs even the hardest impacts with ease.



### Corner protection, self adhesive

Mate	erial Luminance (after 10 min.) Quantity		ity	Article		
Polyur	rethane foam	No / 155 mcd/m <sup>2</sup>		1 m /	5 m	0059
Тур	Design		Colours		1 m	5 m
A	black/yellow			Order-No.	3317	3413
A	red/white			Order-No.	3318	3414
A	white			Order-No.	3319	3415
Ą	black/daylight fluor	rescent		Order-No.	3320	-
Ą	black/luminescent			Order-No.	3321	-
A	black			Order-No.	3322	3418
4+	black/yellow			Order-No.	3323	-
4+	red/white			Order-No.	3324	-
Д+	white			Order-No.	3325	-
<b>Α</b> +	black			Order-No.	3328	-
٩A	black/yellow			Order-No.	3329	3425
AA	red/white			Order-No.	3330	3426
AΑ	white			Order-No.	3331	3427
AA	black			Order-No.	3334	3430
E	black/yellow			Order-No.	3335	3431
E	red/white			Order-No.	3336	3432
E	white			Order-No.	3337	3433
E	black			Order-No.	3340	3436
Н	black/yellow			Order-No.	3341	3437
Н	red/white			Order-No.	3342	3438
Н	white			Order-No.	3343	3439
Н	black			Order-No.	3346	3442
H+	black/yellow			Order-No.	3347	-
H+	red/white			Order-No.	3348	-
+	white			Order-No.	3349	-
+	black			Order-No.	3352	_

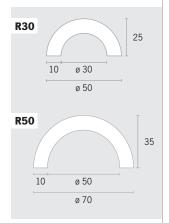




## Edge protection

Material Luminance (after 10 min.)		Quantit	Quantity		
Polyur	rethane foam No / 155 mcc	d/m²	1 m / 5	m	0059
Тур	Design	Colours		1 m	5 m
В	black/yellow		Order-No.	3359	3455
В	red/white		Order-No.	3360	3456
В	white		Order-No.	3361	3457
В	black/daylight fluorescent		Order-No.	3362	-
В	black/luminescent		Order-No.	3363	-
В	black		Order-No.	3364	3460
BB	black/yellow		Order-No.	3353	3449
BB	red/white		Order-No.	3354	3450
BB	white		Order-No.	3355	3451
BB	black		Order-No.	3358	3454
G	black/yellow		Order-No.	3365	3461
G	red/white		Order-No.	3366	3462
G	white		Order-No.	3367	3463
G	black		Order-No.	3370	3466

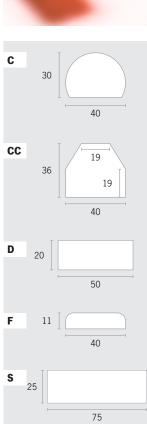
## Piping protection, self adhesive



Mater	ial		Quant	ity	Article
Polyure	ethane foam		1 m /	5 m	0059
T	Davim	Calarina		1	<i>5</i>
<i>Typ</i> R30	Design black/yellow	Colours	Order-No.	3371	5 m 3467
R30	red/white		Order-No.	3372	3468
R30	white		Order-No.	3373	3469
R30	black		Order-No.	3376	3472
R50	black/yellow		Order-No.	3377	-
R50	red/white		Order-No.	3378	-
R50	white		Order-No.	3379	-
R50	black		Order-No.	3382	-







## Surface protection, self adhesive

Mate	rial	Luminance (after 10	min.)	Qua	intity	Article
Polyuı	rethane foam	No / 155 mcd/m <sup>2</sup>		1 m	/ 5 m	0059
Тур	Design		Colours		1 m	5 m
С	black/yellow			Order-No.	3407	3503
С	red/white			Order-No.	3408	3504
С	white			Order-No.	3409	3505
С	black/daylight fluoresce	nt		Order-No.	3410	-
С	black/luminescent			Order-No.	3411	-
С	black			Order-No.	3412	3508
CC	black/yellow			Order-No.	3401	3497
CC	red/white			Order-No.	3402	3498
CC	white			Order-No.	3403	3499
CC	black			Order-No.	3406	3502
D	black/yellow			Order-No.	3383	3479
D	red/white			Order-No.	3384	3480
D	white			Order-No.	3385	3481
D	black			Order-No.	3388	3484
F	black/yellow			Order-No.	3395	3491
F	red/white			Order-No.	3396	3492
F	white			Order-No.	3397	3493
F	black			Order-No.	3400	3496
S	black/yellow			Order-No.	3389	-
S	red/white			Order-No.	3390	-
S	white			Order-No.	3391	-
S	black			Order-No.	3394	-

# Plans for Safety Identification

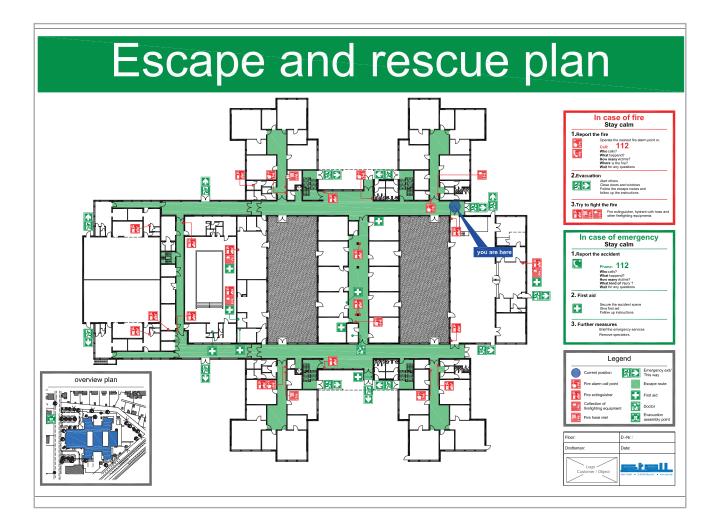


The displayed information for employees and visitors in buildings is an integral part of safety identification. For this reason, our qualified inhouse CAD department specialises in preventative fire protection. We prepare, deliver and install the necessary plans for you in compliance with all relevant laws, regulations, guidelines and standards.

A professional on-site audit is the basis for all plans; a regular inventory check also ensures the safety of your property. Any structural or fire protection changes must result in an adjustment of your plans.

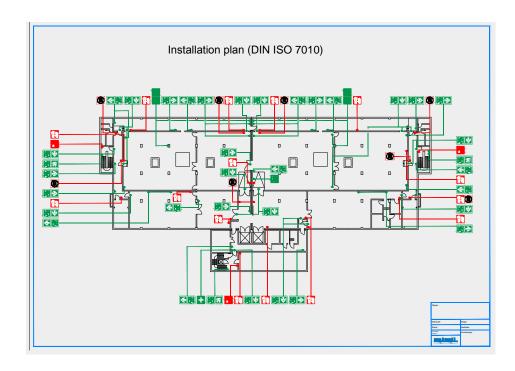
We will perform this review for you. If available, the existing plans establish the starting position. If you do not have a floor plan, we will also draw up neww





### Escape plans

A property's escape and rescue plans are designed for quick orientation so that the fastest and safest path out of danger can be identified. The plans complete the safety identification and increase the level of safety for people in the building. Consulting our on-site audit, we draw up the plans which present a simple, comprehensible of the escape routes and safety signs, fire extinguishers, wall hydrants, pressure detectors, first aid kits, stretchers etc. . They also contain the rules of conduct in accordance with Part A of the German Brandschutzordnung ("Fire safety regulation"), i.e. how to behave in the event of fire or accidents.



#### Installation plans

Within the framework of the on-site audit, we can conduct a variance analysis for the existing labelling or prepare a new documentation of the safety signage if you please. Our expert staff will record all of the signs that are present on your site and note all of the labels that are missing or need to be adapted. We will then create w plans for you that include the positioning and fastening of the signs as well as the proper installation options. These plans can be used for an on-site installation by us or your own employees, for documenting your plant, or for further planning of your safety and health protection labelling.

#### Fire safety regulation

The fire safety regulation includes the most important measures to follow for preventing and dealing with fires and is divided in the three following parts. Part A of the fire safety regulationaddresses all persons in the relevant building and describes the most important rules in cases of fire or accidents. Part B addresses the employees of the company and, amongst others, describes general measures in order to prevent spread of fire and smoke and guidelines of how to keep clear the escape and rescue routes. The third Part C addresses employees of the company being in charge with fire prevention tasks and mainly describes fire protection measures. The fire safety regulation needs to be individually applied to every building and be checked every other 2 years by a fire prevention expert. Upon request, we can provide you with Part A as individual printouts; these can be complemented with Parts B and C as hardback copy.

#### **Designs**

Upon completion of our work, we give you a data medium that contains the digital documentation in the desired file format (supported file formats: \*.PDF, \*.DWG, \*.DXF). You of course also have the option to use the printing and plotter service. This includes, amongst others, multicolour printing, formats from DIN A4–DIN A0 and special formats upon request, photoluminescent plots (e.g. for escape and rescue plans), and lamination up to DIN A 1. We offer a selection of folding frames in different shapes and sizes. If you are looking for a more appealing variant we recommend the acrylic frames of our own production.





# Fastening and Accessories

In order for a sign to aid in providing clarity, safety and orientation, it must be properly installed. Our fastening products therefore offer the right solution for each of our safety and health protection labelling systems. Tried, tested and durable, the different sizes and types of signs can be fastened to the necessary installation points in a clearly visible manner. For further questions regarding our products our sales team is always at your disposal.



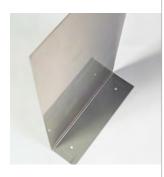
### Snap frame

Material				Qι	ıantity	Article
Aluminium anodized				1 ;	oiece	0060
Width x Height x Depth			mitred corner	rounded comer	lockable	fire protection certified
274 x 361 x 32 mm	DIN A4	Order-No.	2731	2732	-	47509
361 x 484 x 32 mm	DIN A3	Order-No.	2734	2735	2736	47508
484 x 658 x 32 mm	DIN A2	Order-No.	2737	2738	2739	47507



### Sign mount

Material			(	Quantity	Article
Aluminium A / Stainle	ess steel E			1 piece	0107
Width x Height	Scope of delivery		Mat	Ma	t
145 x 145 mm	incl. double faced adhesive foam tape	Order-No.	<b>A</b> 49	542 <b>E</b>	36632
195 x 295 mm	incl. double faced adhesive foam tape	Order-No.	<b>A</b> 49	543 <b>E</b>	36633



### Flag fastener

Material		Quantity	Article
Aluminium		1 piece	0061
Width x Height	Application		
150 x 150 mm	wall and ceiling suspension	Order-No.	2715
150 x 300 mm	wall and ceiling suspension	Order-No.	2716
150 x 450 mm	wall and ceiling suspension	Order-No.	2717
200 x 200 mm	wall and ceiling suspension	Order-No.	2718
200 x 400 mm	wall and ceiling suspension	Order-No.	2719
200 x 600 mm	wall and ceiling suspension	Order-No.	2720
300 x 150 mm	wall suspension	Order-No.	2721
400 x 200 mm	wall suspension	Order-No.	2722



### Nose fastener

Material	Quantity	Article
Aluminium	1 piece	0062
Width x Height		
150 x 150 mm	Order-No.	2701
150 x 300 mm	Order-No.	2702
200 x 200 mm	Order-No.	2704
200 x 400 mm	Order-No.	2705
200 x 600 mm	Order-No.	2706
300 x 300 mm	Order-No.	2703
400 x 400 mm	Order-No.	2707



### Double-faced acrylate adhesive tape

Material	Quantity	Article
Acryl	1 piece	0063
Width x Length		
150 mm x 50 m	Order-No.	2699
200 mm x 50 m	Order-No.	2700



### Double faced adhesive foam tape

Material		(	Quantity	Article
Polyethylene foam			1 piece	0021
Width	Application		Length 10 m	Length 50 m
150 mm	For signs	Order-No.	6860	94
200 mm	For signs	Order-No.	6861	95
300 mm	For signs	Order-No.	6862	96
400 mm	For signs	Order-No.	6863	97
58 mm	For flat profiles	Order-No.	6858	98
78 mm	For flat profiles	Order-No.	6859	99
51 mm	For sloped profiles	Order-No.	6864	6865
71 mm	For sloped profiles	Order-No.	6866	6867





### Cartridge skeleton gun

	Quantity	Article
	1 piece	0091
Application		
For adhesives and sealants from the cartridge	Order-No.	5456



## Tube of glue

	Quantity	Article
	1 piece	0091
Application		
For the assembly of signs, transparent	Order-No.	47477
		1 piece Application



### Cleaner spray

		Quantity	Article
		1 piece	0091
Design	Application		
Spray can, 500 ml	FFor degreasing metallic surfaces, glass and ceramics (check suitability before use)	Order-No.	33847



### Surface cleaner

		Quantity	Article
		1 piece	0091
Design	Application		
Spray can, 500 ml	For degreasing metallic surfaces and many plastics (check suitability before use)	Order-No.	33848

#### **Terms of Service - Purchase Contract**

#### 1 General Information

- 1.1 The following "Terms of Service Purchase Contract", in here later referred to as "terms of service", apply to all purchase contracts between the Stell Sign Projects India Private Limited (Limited liability company), office number 202C, 2nd floor of building/wing one Eminence Techno Park (Town Square), Lohegaon Viman Nagar, Pune 411014, Maharashtra, India. (in here later referred to as "seller") and enterprises, legal bodies under public law and legal assets under public law (in here later referred to as "buver").
- 1.2 Contradicting or differing terms of service of the buyer are no subject to the contract even if the seller is fulfilling the contract without having explicitly refused those terms. Differing terms only apply if explicitly agreed to by the seller in writing.

### 2. Contract proposal and conclusion, offers, orders

- 2.1 The offers of the seller are non-binding and shall be considered as a proposal towards the buyer to place a purchase order with the seller. The purchase contract (in here later referred to as "order") is concluded with the placement of the order by the buyer and the acceptance of the order by the seller. If the acceptance notice differs from the order, it is to be considered a new, non-binding offer of the seller.
- 2.2 By placing the order the buyer bindingly declares to willingly purchase the ordered product(s). The seller is entitled to accept the ordered service within 2 weeks after the placement of the order. By placing the order, the buyer agrees to the present terms of service. The same applies to all future purchase orders even if the terms of service are not explicitly referred to.
- 2.3 The buyer is obligated to immediately revise the acceptance notice/ order confirmation of the seller. If no formal acceptance notice has been issued, the former applies also to instalments, partial or final accounts.
- 2.4 The granting of a certain property or suitability of the contract related product concerning a certain intended use as well as taking over a guarantee is only binding if confirmed by the seller in writing. The properties of patterns or samples are only binding as long as explicitly agreed to be properties of the product.
- 2.5 As far as the seller provides advice and support services, those are provided to the best of his/her knowledge.

### 3. Purchase price, payment, default, off-set, retention, transfer of claims

- 3.1 (a) All prices are ex office of the seller.
- (b) Generally, the purchase price is excluding GST as far as legal tax obligations apply. If the statutory GST rate increases between the conclusion of the contract and the issuance of the invoice, the buyer has to pay the higher GST rate if the agreed delivery term exceeds 4 months.
- (c) On deliveries and services within the SEZ, the buyer has to provide his/her GSTN Id number used for his/her turnover taxation priory to the payment. (d) The seller is entitled to claim down payments according to the value of already performed partial services.
- 3.2 If the agreed delivery term exceeds 4 months, the seller reserves the right to reasonably adapt the agreed purchase price according to changes of actual costs, including material costs and labour expenses as well as shipping costs if necessary. The same applies in case of increase of customs or fees required for deliveries at the seller's expense. If the price unproportionally increases compared to the consumer price index, the price increase will be limited to gained market price. Paragraph 4.13 remains untouched.
- 3.3 The agreed purchase price is due within 7 days after the delivery of the product to the buyer without deductions, unless otherwise agreed upon. The same applies to partial services. Discounts may only be deducted if the payment has been credited to the seller's account in due time and if the buyer is not in default with other claims of the seller at the time of the respective payment. Discounts may only be deducted from the net price, not from fees or shipping costs etc.
- 3.4 Drafts and checks will only be accepted on account of performance and upon explicit agreement. They will not be considered as payment until they are encashed. Discounts, draft charges and taxes are at the buyer's expense after the expiry of the agreed payment term.

- 3.5 The buyer defaults in payment after the expiry of the 7th day after the delivery of the product, latest after expiry of the last day of an individually granted payment period.
- **3.6** (a) The buyer may only off-set against claims of the seller with undisputed, final and absolute counter claims.
- (b) Letter (a) respectively applies to the execution of retention rights by the buyer.

  3.7 The buyer is not entitled to retain claims of the
- seller resulting from this contract due to unsettled claims not subject to this contract.
- 3.8 The buyer's right to lien does not apply.
- 3.9 If there are reasonable doubts concerning the liquidity or credit status of the buyer and if the buyer is not willing to pay in advance or provide a suitable financial security on demand of the seller, the seller is entitled, if he/she has not performed yet, to demand an advanced cash payment before a possible further/subsequent delivery or performance. This particularly applies to agreed, but not yet carried out subsequent business transactions.
- 3.10 The seller reserves the right to use payments to settle the oldest open account item plus incurred default interests according to the following order: costs, interests, principle claim.
- 3.11 The seller is entitled to transfer claims resulting from or in relation to this purchase contract. The buyer may not transfer his claim against the seller to third parties.
- 3.12 On default of payment of remuneration claims, the seller is entitled to claim default interest of 8 %-points above the basic interest rate valid at the time of default occurrence. Claims towards further actual default damages remain unchallenged, so do legal rights to claim damages for the failure of performance as well as withdrawal from the contract.
- 3.13 On default, all claims resulting from all contract relationships of the parties are due immediately, unless the default is related to only minor claims.

#### 4. Delivery, transfer of risk

- 4.1 If no explicit delivery term has been stated by the seller, the delivery may be claimed not until 8 weeks after the conclusion of the contract. An agreed approximate delivery term does not begin until receipt of all necessary documentations and information to be handed in by the buyer.
- 4.2 If the buyer has been granted a certain delivery period, this period is to be considered as complied with if the product to be delivered has been delivered to the customer. If the purchase contract consists of several partial deliveries, the acceptance has to take place according to the agreed delivery intervals.
- **4.3** If not otherwise agreed upon, the products are provided for collection at the delivery point of the seller. On collection from the delivery point the collection has to take place by the buyer or his/her representatives according to legal regulations concerning secure loading of vehicles.
- **4.4** If the dispatch of products has been agreed upon, the seller dispatches the products on request of the buyer at the buyer's risk and expense.
- 4.5 If employees of the seller support the loading of vehicles according to paragraphs 4.3, 4.4 outside the scope of agreed services on request of the buyer, they solely act on order of the buyer.
- 4.6 (a) The risk transfers latest on handing over the product to the forwarding/collecting agent according to paragraph 4.3, also in the event of partial deliveries or if the seller has taken over additional services, such as dispatch or direct delivery of the products. On request of the buyer, the shipment will be insured against theft, physical, fire or water damages and other insurable risks by the seller acting as a mediator only.
- (b) If the buyer defaults in acceptance, the seller is entitled to store the products without further notice/reminders at the buyer's expense and risk.
  (c) If the buyer defaults in acceptance, the purchase price is due immediately.
- **4.7** Partial deliveries by the seller are accepted, if reasonable to the buyer under consideration of the interest of both parties.
- 4.8 Reusable logistic appliances, such as reusable pallets, are to be returned to the seller at the buyer's expense and risk in functioning condition. If the buyer does not comply with this duty within one month after delivery, the appliances will be charged to the buyer's account.
  4.9 The acceptance of the shipment without ob-
- 4.9 The acceptance of the shipment without objections by the collecting agent is to be considered as a proof of intact packaging and correct loading, unless the buyer proves that the packaging was damaged or the loading did not take place correction on handing over the shipment to the collecting agent. Complaints due to transport damages are to

- be reported to the company in charge with the shipment in writing within the specified special period, with a copy to the seller.
- 4.10 If the parties use INCOTERMS clauses for an individual purchase contract, those terms apply in the version valid at the time of concluding the contract. Possible contradictions with other terms of paragraph 4 of this agreement are overruled by the agreed INCOTERMS regulations.
- 4.11 The buyer is responsible for the compliance with legal and official regulations concerning import, delivery, storage and use of the services and deliveries performed by the seller in the country or place of destination as well as in the transit countries as well as responsible for the acquisition of required import and transit documents (custom etc.) as long as those are not exclusively to be provided by the seller due to legal reasons.
- **4.12** All deliveries are subject to correct and due supply of the seller.
- 4.13 If it has been exceptionally agreed upon that the seller is to bear custom or export/import costs of the country of origin/destination or of transit countries, the cost increase occurring in between the time of the acceptance of order and delivery of the contractual products transfers to the buyer.

#### 5. Reservation of title

- **5.1** Until complete payment of all receivables resulting from the business relationship with the buyer, products remain property of the seller.
- **5.2** The reservation of title also persists if single claims of the seller are added to a running account and the account is balanced and confirmed.
- 5.3 The return of reserved products does only represent a withdrawal from the contract if explicitly declared by the seller in writing. If the seller withdraws from the contract, he/she may claim a reasonable compensation for the duration the products were in possession of and in use by the buver.
- 5.4 (a) The buyer is entitled to use the products owned by the seller in the usual course of business as long as he/she complies with his/her duties resulting from the business relationship with the seller. Not included in the usual course of business is the prohibition of the transfer of claims concerning the purchase price from the buyer to his customers. In particular, pawning, mortgage or other encumbrances of the products are prohibited.
- (b) All claims of the buyer resulting from the resale of products owned by the seller are already by now transferred to the seller for security reasons, if applicable in the amount of the co ownership share. Confirmed receivables resulting from current account agreements the buyer already transfer to the seller at the time of concluding the contract with the seller in the amount of accounts receivable. If the buyer defaults in payment, the seller is entitled to claim the interim return of the products owned by the seller even without withdrawing from the contract and setting an additional grace period at the buyer's expense.
- (c) In the event of the processing of contractual products owned by the seller, the seller is to be considered the manufacturer and gains a co-ownership proportionally to the invoiced value of his own products.
- (d) If the product of the buyer is to be considered the final product in the event of attaching or blending of contractual products owned by the seller with goods of the buyer, the co-ownership of the product transfers to the seller in the amount of the invoiced value of his/her own product or the current market value of the final product if an invoiced value is not existent. In these cases the buyer is to be considered the custodian of the product.
- 5.5 In the event of resale of contractual products, the buyer is obligated to arrange regulations concerning the reservation of title with his customers without revealing the original reservation of title agreed upon with the seller. (Secondary reservation of title)
- 5.6 If the seller has reasonable concerns that the buyer is not fulfilling or will not fulfil his/her duties towards the seller, the buyer is to order his/her customers on demand of the seller to abstain from demands to receiving information about the stock of seller owned products and receivables transfered to the seller as well as to being handed out documents to enforce transferred receivables. The same applies in case of withdrawal of the direct debit authorization. Access to reserved products by third parties and transferred receivables is to be announced immediately.
- **5.7** If the security value exceeds the claims of the seller to more than 10 %, the seller will release securities on the buyer's request.

#### 6. Warranty/guarantee

- **6.1** If not individually agreed upon, the seller delivers the product according to the terms stated in the regular product description (catalogues etc.), otherwise according to standard terms. Additional properties of the product to be purchased stated in other publications or advertisements of the seller or his/her suppliers/manufacturers may not be derived by the buyer unless the seller has confirmed those additional properties in writing. Guarantees require an explicit written confirmation by the company management of the seller.
- 6.2 Subject to compliance with inspection and objection obligations of the buyer in connection with paragraph 6.3 of this agreement, the seller may choose to compensate for defective products between rectification of the defect or new delivery. The seller reserves the right to two rectification attempts. The seller is entitled to reject the chosen rectification method if rectification would result in nproportionally high costs and the other method of rectification is possible without significant disadvantages for the buyer. If the rectification fails, the huver is entitled either to claim a reduction of the purchase price or to withdraw from the contract. The right of the buyer to legally claim compensation for damages or necessary expenses according to the law, in addition to with drawing from the contract, remains unchallenged, except the limitations for claims of the buyer according to paragraph 7 of this agreement.
- 6.3 The defect notice may only be issued by the buyer in writing. Further legal requirements remain unchallenged. Regardless of that, guarantee claims of the buyer are excluded if the buyer fails to report obvious defects in writing within one week from the date of delivery until dispatch of the written defect notice.
- **6.4** The delivery of defect free item for the purpose of rectification generally takes place only in exchange to the return of the defective item.

#### 7. Liability

In cases of contractual or non contractual liability, the seller compensates for damages or lost expenses according to the following regulations:

- 7.1 The seller is liable to the full amount in cases of intent or gross negligence.
- 7.2 On lack of a property for whose existence the seller has taken over a guarantee or which has been assured to the buyer, the seller is liable for the typical, foreseeable damage which was supposed to be prevented through the guarantee or assurance as long as the lack of the guaranteed/ assured property was caused by intent or gross negligence.
- 7.3 in case of light negligent violation of essential contractual obligations (cardinal obligations), the liability of the seller is limited to the compensation for the typical, foreseeable damage; in case of light violation of non cardinal obligations, liability of the seller is excluded.
- **7.4** The above mentioned limitations of liability do not apply to claims of the buyer under the Product Liability Act and resulting from harm to life, body and health caused by the seller.
- 7.5 Other legal obligations concerning compensation or exclusion of liability remain unchallenged.

### 8. Force Majeure

In case of events or circumstances, such as natural events, war, labour disputes, raw material and energy shortage, traffic and facilities disturbances, fire and explosion damages, orders of higher authorities whose occurrence are outside the sphere of influence of the seller, even under consideration of careful commercial planning and precaution, and which impair the availability of products from the source from which the seller is supplied so that the seller is not able to fulfil his/her contractual duties (i) under partial consideration of other internal relieved from his/her contractual duties for the duration and extend of the disturbance and (ii) is not obligated to obtain the products from third parties.

Sentence 1 also applies as long as the events and circumstances make the execution of the respective business sustainably uneconomic for the seller or influence the seller's suppliers. If those events last longer than 3 months the seller is entitled to withdraw from the contract.

#### 9. Confidentiality, data predection

9.1 The parties agree to treat all confidential information and industrial secrets of the other party collected within the scope of execution of the contract confidentially without temporal limits and to



use them only within the scope of executing the contract.

9.2 Both parties comply with data predection regulations. The handling of the business relationship will be supported by a data processing system of the seller, thus data of the buyer will be automatically collected and stored. The buyer will be informed about the storage of his/her data.

#### 10. Industrial property rights

10.1 The buyer is responsible that property rights of third parties are not violated by the seller receiving and using materials of the buyer, such as documentations, data, drafts, planes or other execution instructions provided by the buyer necessary for the execution of the contract, and relieves the seller from all related claims. The buyer bears license fees or costs resulting from the avoidance of such violations of property rights.

10.2 If industrial property rights occur within the scope of the execution of contractual agreements, the buyer is to transfer those rights to the seller if legally possible. If the full transfer of rights is not possible, the buyer grants the seller an exclusive, overall usage right, unlimited in time and space or, if even this is not possible, a non-exclusive right. Legal regulations which grant the buyer a reasonable compensation for the transfer of rights remain unchallenged.

10.3 The buyer has no property rights towards films, plans, drawings and graphics compiled in the course of the preparation of purchase product. In particular, industrial property rights on those as well as on the contractual products remain with the seller. By full payment of the remuneration, the buyer gains the ownership on the delivered products.

10.4 The seller is entitled to perform or deliver products to third parties, comparable to the deliveries and services delivered to or compiled for the buyer, in particular films, plans, drawings and gra-

phics. The seller is entitled to attach an adequate copyright label or label of origin to all contractual products.

10.5 The seller is entitled to use the deliveries of purchase products delivered to the buyer within reason for own advertising and promotion purposes in any form, such as illustrations of products and the place of use at the buyer's facilities in brochures or electronic media. This right does only not apply if the buyer explicitly disagrees to such use by the time of his/her declaration of intent towards concluding the contract.

#### Place of execution, place of jurisdiction, choice of law, severability clause, written form

11.1 Place of payments by the buyer is the company residence of the seller.

11.2 Place of jurisdiction for all claims resulting from or in relation to the respective purchase contract, concerning its conclusion, its effectiveness and execution is the usual place of jurisdiction of the seller or, on request of the seller, the usual place of jurisdiction of the buver.

11.3 If single regulations of these terms of service are entirely or partially invalid or have legal gaps, the effectiveness of other regulations or parts of regulations remains unchallenged.

## Your contact persons

for all questions regarding labelling and signs

Sometimes a personal conversation is the best choice. Do you need an individual solution? Do you work with a specific standard? Or maybe you are just seeking professional advice? Please do not hesitate and get in contact with our industry experts!



#### **Christiaan Bruining**

Managing Director Phone +91 9158459421 bruining@stell.co.in



#### **Agnelo Thomas**

Senior Sales Engineer Phone +91 7378891742 thomas@stell.co.in



Phone +91 97658 88360 info@stell.co.in

