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## Dear Customers,

We are pleased to present you the latest version of our catalogue for the range of “building hardware”. You will surely notice that with our current production programme, we have consequently continued our strategy of engineering and manufacturing complete fitting systems for the market. The system approach is established – among others – by a variety of combination possibilities offered by our products which are referred to in our product sheets. All our products are still manufactured in Germany, enabling us to offer our customers sustainable quality together with high flexibility.

## Our Company

BaSys - Bartels Systembeschläge GmbH was founded in 1995 as a result of the separation of the former production facility ONI situated in Hohenhausen from its former parent company. Since the foundation, we are an independent company with a strong focus on product engineering and innovation.

We offer high-quality fitting systems for the building industry. Especially in the building sector, our customers attach more and more importance to sound insulation and security features including fire protection and burglary protection. Having reacted quickly and efficiently to these challenges, we are now considered as a competent contact for this topic by many door manufacturers. This is also underlined by the number of products that have reached the important certificate according to DIN EN 1935 (CE Sign).

We work closely with our customers to ensure that door and fitting system become a perfect unit. We call this kind of cooperation “engineering partnership”. Together with our customers, we develop solutions from ideas to final products ready for the market. Thus, we have successfully launched innovative high-quality products in international markets.

One of our strong points is uncompromising customer orientation. Supporting our customers' needs, we provide an outstanding degree of flexibility.

## Our Catalogue

The current catalogue consists of 11 chapters, some of them with sub chapters. Each chapter includes an index showing small-sized pictures of all products to help you quickly identify the items you are looking for. The product sheets include technical details and order instructions. If a product has been tested according to UL you will find the according sign on the catalogue page.

The same applies for the certificate according to DIN EN 1935 (CE Sign).

You will find the current UL and CE certificates as well as Declarations of Performance (DoP) in the beginning of the respective chapters.

Please note that this catalogue shows only a part of our production programme. If you do not find an item you are looking for, please let us know – together we will find a solution!

Since any printed catalogue is soon out of date, you will always find an updated version of our catalogue within the technical information system on our website **[www.basys.biz](http://www.basys.biz)**. Due to our innovative strategy to continuously improve our products, we reserve the right to technical changes in the current delivery programme.

For each fitting you will find an indication of the standard load. The determination of the standard load will be explained in the following. Please note that the standard load values given in the catalogue relate to the application of 2 hinges per door (see also drawing below with regard to DIN 18101). If 3 hinges per door are used, the load capacity increases by approx 30 %. This rule does not apply to the concealed hinges PIVOTA® DX and PIVOTA® FX1.

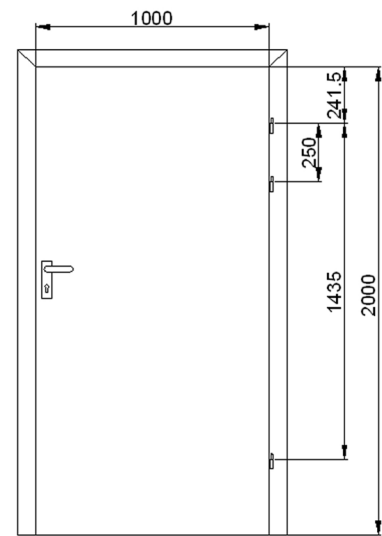
### Determination of the standard load

The values given in the catalogue only apply to the types of rabbet shown in our drawings. Please note that these values may vary considerably with other rabbet types also possible. In this case, please contact us.

Besides, our statements are based on a dimensionally accurate and appropriate rabbet. The adjacent drawing shows the distance measures between the hinges according to DIN 18101 and the door dimensions used in our tests. Up to the point where variations occur on the seat of the hinge or on the hinge itself, combi hinges can bear heavier loads than stated in the table.

However, we recommend not to exceed the table values because in practice loads may increase due to improper handling of the doors.

Attention: Load values and pull-out values must not be confounded. The load value indicates the emerging forces in practice while the pull-out value only indicates the tensile loading of a screwed pin in axial direction.



Bandabstandsmaße nach DIN 18101

Please be aware that the term “standard load” does not necessarily reflect only the door leaf’s weight. Oversizes (especially width of the leaf) and additional stress, e.g. the installation of a door closer, need to be well considered. The actual hinge norm DIN EN 1935:2002 states in this regard:

“Door closers increase the load of the hinges and therefore also their usage. Door closers without opening suspension are considered to increase the effective door weight by 20%. For door closers with opening suspension this effect is much bigger and the effective door weight has to be increased by 75%. For this reason, it is recommended to use 3 or more hinges of grade 12, 13, or higher for doors which are equipped with door closers.

### Load Values for selected hinges

Determined on wooden doors with steel or wood frames; door leaf frame made of spruce wood, grade 1.

The load values are shown in the table below:

## PIVOTA® DX Hinges

Complete Hinge	Maximum permissible weight of door leaf in kg:	
	with 2 hinges	with 3 hinges
PIVOTA® DX 35 2-D „LT“	40	*
PIVOTA® DX 38, DX 42, DX 43 3-D	60	*
PIVOTA® DX 58 3-D	80	*
PIVOTA® DX 60, DX 61, DX 62, DX 65 3-D	100	*
PIVOTA® DXS 61 3-D „Close“	80	*
PIVOTA® DX 80 „ZA“ 3-D	80	*
PIVOTA® DX 100, DX 101, DX 102 3-D	120	*
PIVOTA® DXS 101 3-D „Close“	80	*
PIVOTA® DXS 100 3-D „Steel“, DXE 100 3-D „Enox“	160	*
PIVOTA® DX 120, DX 120 3-D „33mm“	160	*
PIVOTA® DX 180 3-D	200	*
PIVOTA® DXS 180 3-D „Steel“	300	
PIVOTA® DX 190 3-D	200	*
PIVOTA® DXA 200 3-D „Alu“	180	*
PIVOTA® DX 200 3-D	200	*
PIVOTA® DXS 200 3-D „Steel“	250	*
PIVOTA® DX 300 3-D	300	*
PIVOTA® DXS 300 3-D „Steel“	350	*

\*: Using a third or fourth hinge can increase the load capacity of the concealed hinge system. Please contact us, we will evaluate the best possible configuration for your application.

## PIVOTA® FX Hinges

Complete Hinge	Maximum permissible weight of door leaf in kg:	
	with 2 hinges	with 3 hinges
PIVOTA® FX2 60 3-D	80	100
PIVOTA® FX1 100 3-D	100	*
PIVOTA® FX1 150 3-D	150	*

\*: Using a third or fourth hinge can increase the load capacity of the concealed hinge system. Please contact us, we will evaluate the best possible configuration for your application.

## OBJECTA® Heavy Duty Hinges

Complete Hinge	Maximum permissible weight of door leaf in kg:	
	with 2 hinges	with 3 hinges
2091/100/56 GL, 2094/100/56 GL	60	80
2043/2041/100, 2044/2040/100 M10, 2044/2080/100, 2027/100/56	80	110
2092/100, 2093/100	80	110
2039/2040/100 M10, 2039/2041/100, 2049/2041/100 CS, 2049/2041/100 CS PL, 2039/2041/100 PL, 2039/2080/100, 2049/2080/100 CS, 2029/100/56, 2039/100/56, 2049/100/56 CS, 2049/100 M10 CS, 2039/2080/160	100	130
2029/120/56 D15 „Gracila“, 2027/120/56, 2082/120/56	100	130
2092/120, 2093/120	100	130
2029/120/56 Cr. 15 mm, 2029/120/56, 2039/120/56	120	150
2886, 2886 M10	120	150
2029/160/56 D15 „Gracila“, 2027/160/56, 2082/160/56, 2029/160/56 Spring Hinge	120	150
2092/160, 2093/160	120	150
2839, 2839 CS, 2881, 2881 CS, 2839 M10, 2839 CS M10, 2839 PL M10, 2039/160/56 Spring Hinge	150	190
2029/160/56, 2029/160/56 Cr. 15 mm, 2029/160/56 D18, 2039/160/56, 2039/160/56 D18, 2049/160/56 CS, 2049/160/56 CS D18	160	200
2541/160/56-4	170	220
2529/160/48-4, 2529/160/56-4, 2229/160/48-4, 2229/160/56-4, 2229/160/56-4 RC3, 2069/160/48-4, 2239/160/56-4 RC3, 2249/160/56-4 RC3 CS PL, 2239/160/56-4, 2539/160/48-4, 2539/160/56-4	200	260
2540/160/48-4	240	310
2229/160/56-4 S, 2239/160/56-4 S	350	400
<p><b>Remark:</b> The table shows only the main type of each Heavy Duty Hinge. If, for example, the load capacity for 2039/160/56 is 160 kg, this also applies to 2039/160/56 SE.</p>		

The sort sequence of the products in the sub-chapters of the Heavy Duty Hinges is defined as:

### Chapter 1A and 1B:

1. Grouping: flush – flush rebated – rebated – Glass
2. Grouping: Length of the hinge (ascending)
3. Grouping: Barrel Diameter

**Chapter 1D:**

1. Grouping: Length of the hinge (ascending)
2. Grouping: Steel frame receiver – M10-receiver – renovation solution – drill-in hinge

**Chapter 1E:**

1. Grouping: Length of the hinge (ascending)
2. Grouping: Width of tab

**Sort sequence within certain hinge models:**

Normal model, then options PI – SE – CS – CS PI – CS SE

**COMBICA ® 2 Component Hinges**

Leaf part	In combination with frame part	Maximum permissible weight of door leaf in kg:	
		with 2 hinges	with 3 hinges
1525 V7	1534 MF, 1544 MF, 1545 MF, 1581 MF	30	50
1621, 1622	1631/11,5	30	50
Renovation Hinge D15 complete		30	50

**COMBICA ® 3 Component Hinges**

Leaf part	In combination with frame part	Maximum permissible weight of door leaf in kg:	
		with 2 hinges	with 3 hinges
2637 MF 2667 MF 2647 MF	2641, 2644, 2650, 2680, 2681, 2682, 2687, 2941 (always MF)	80	110
2641 MF, 2641 MF Fix.	2641, 2644, 2650, 2680, 2681, 2682, 2687, 2941 (always MF)	70	100
2655 MF 2656 MF	2641, 2644, 2650, 2680, 2681, 2682, 2687, 2941 (always MF)	70	100
2941 MF, 2941 MF Fix.	2641, 2644, 2650, 2680, 2681, 2682, 2687, 2941 (always MF)	80	110
1587 MF, 1592 MF		70	100

Legend for OBJECTA® Heavy Duty Hinge Descriptions

<b>Heavy Duty Hinges for 3-dimensionally adjustable receivers</b>		22	49/	160/	56	-4	RC3	CS	DT
<b>Example</b>									
<b>Barrel diameter of heavy duty hinges</b> Values:									
20	normal heavy duty hinges, 3 mm thick barrel diameter 15 mm – suffix D15 barrel diameter 18 mm – suffix D18 barrel diameter 20 mm – without suffix								
22, 25	extra heavy duty hinges, 4 mm thick barrel diameter 22 mm								
<b>Rabbet options</b> Values:									
28, 29, 86	flush closing								
27, 82	rebated, flush closing								
39, 49, 81	rebated								
<b>Hinge height</b> Values:									
100	100 mm hinge height								
120	120 mm hinge height								
160	160 mm hinge height								
<b>Connection size</b> Values:									
24	24 mm connection size („BX“)								
44	44 mm connection size („VB“)								
48	48 mm connection size („VN“)								
56	56 mm connection size („VX“)								
96	96 mm connection size („VN“)								
<b>Material thickness</b> Values:									
no value	3 mm material thickness								
-4	4 mm material thickness								
<b>Additional properties</b> Codes:									
SE	Security studs for rebated door applications								
PI	Pivot for rebated and flush closing rabbet options								
Cr	Cranking								
CS	Continuous seal for rebated door applications								
D15	Barrel diameter 15 mm								
D18	Barrel diameter 18 mm								
DT	Decorative tip								
RC3	Resistance class 3 (burglary protection)								
R18	Suitable for rebated doors with 18 mm rabbet depth								