



Have everything arranged with  
numbers, measures and weights!

For the **graphic** arts industry!

We address the members of the graphic arts industry who plan and organize and are accustomed to rational work. From the paper manufacturer and dealer, to the cliché manufacturer, the book printer, to the editors and editorial staffs at publishing houses. In addition, to all other intermediate subcontractors connected with the graphic arts industry. There is no branch in this multifaceted economic structure in which the final construction of the

### ***Demegraph 13*** – Slide rule

would not be of use. This easy-to-use calculating rule performs all previously often cumbersome arithmetic work in no time at all and effortlessly. We turn to the advertising specialist and graphic artist, to all those who have to do with graphic work in drafting and design.

FABER-CASTELL has made available its decades of experience in the construction of precisely working special slide rules, for this indispensable device in the graphic arts industry. The introductory model O 11 from 1947 had already received full recognition, as the letters of recognition reproduced in this prospectus prove. With the final design that has now been achieved, a tool has been created that meets all requirements and makes work easier. The purchase price pays for itself in just a few weeks.

There is no computational and metrological work process in the graphic arts industry that DEMEGRAPH 13 could not solve: paper weights, typesetting widths and heights, manuscript calculations, scale ratios or whatever else it is. A glance at the slide rule and all questions that previously required cumbersome calculations are answered reliably and accurately.

DEMEGRAPH 13 is also an important tool in the training of junior staff in order to achieve high professional performance. The handling of the device is simple and easy to learn. The detailed manual of instructions, which is included free of charge with each DEMEGRAPH 13, shows a wealth of practical examples which will prove the value and usefulness of this new tool to any member of the graphic industry.

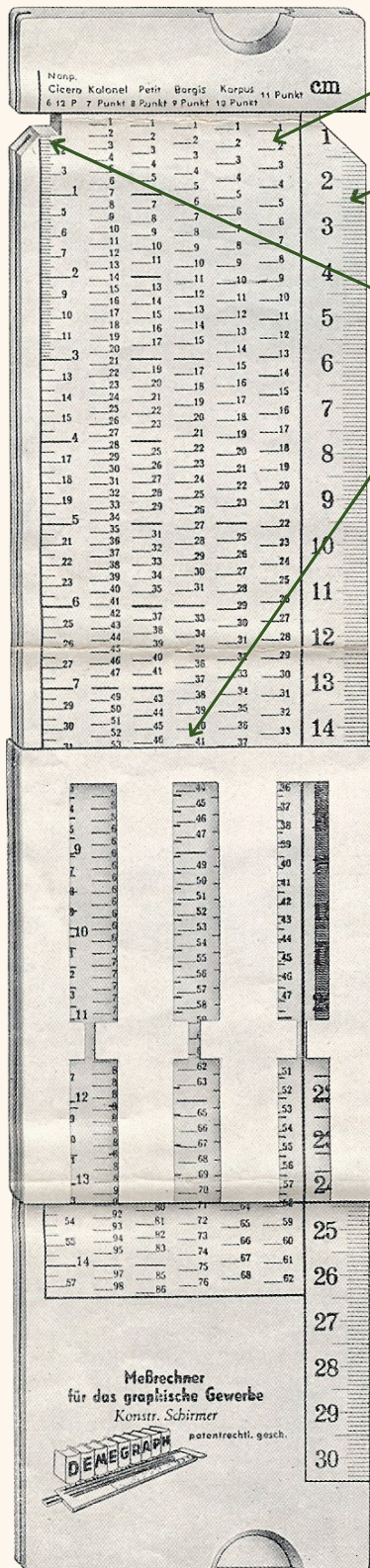
 **A.W. FABER-CASTELL, STEIN BEI NÜRNBERG**



# Demegraph 13

The **graphical** slide rule

What does it do?



FRONT

1- **Typographic measuring side** with an 11-point scale is the printed font and lines measurement for use in the graphics industry.

2- **Centimeter scale** for determining the diameters of roll paper and can be used as a ruler.

3- **Caliper shape** with new head incisions for exact positioning.

4- **Thickness gauge** for paper, carton and cardboard with a new type of head incision as rule of thumb immediately usable in practice.

5- **Printed lines type heights** and widths can be measured with the cursor front edge. The cursor edge allows the simultaneous reading of lines and letters of different font sizes.

6- **Novel width scale** of most common fonts from 6-10 points. Readability of the number of letters up to 44 cicero width.

7- **Calculation of manuscripts** by a novel width scale for typewriter fonts. Readability of the number of letters up to 20 cm wide writing.

8- **Three scales for line spacing** for most frequently used typewriter fonts.

9- **Cliché size calculation** by means of a logarithmic scale; time-saving multiplication, dividing or other ratio calculations.

10- **Conversion values** of the typographic point system (Didot) can be read immediately. Metric measure on the upper logarithmic base scale. Accurate value reading in the basic setting of the device.

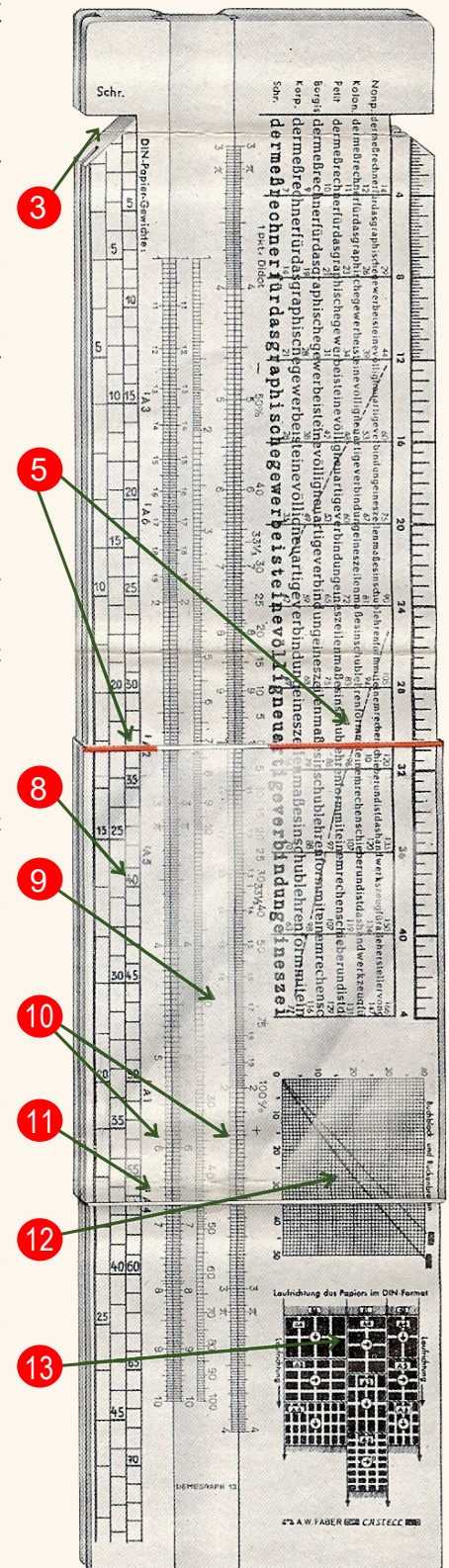
11- **Paper weight table** for all DIN standard formats, in a comprehensive and precise presentation.

12- **The diagram for book block** and spine widths gives a novel representation of the development phases of brochures and books of all thicknesses. As a result, early determination of the back widths and elimination of the otherwise usual blind band.

13- **The direction** of the printing paper can be read from a new diagram in portrait or landscape format for all DIN respective layouts.

Almost unlimited versatility of application in the technical and commercial sector through the connecting logic of the individual functions. Therefore also high performance due to the now achieved final construction of the DEMEGRAPH 13

German patent No. 804932  
French Patent No. 965 466



BACK

# PERCENTAGE SCALES

for **LINOTYPE FONTS** of  
Different Widths

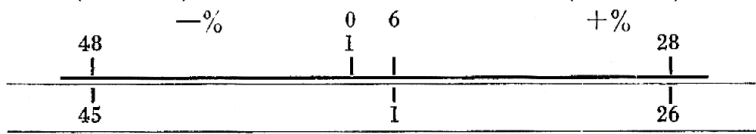
For **100% precise width calculations**, the percentages specified in the following font sizes reflect the exact differences compared to the average accurately calculated width dimensions in the graphical slide rule DEMEGRAPH 13. **MINUS** differences (-) apply to **broadier** fonts; **PLUS** differences (+) for **narrower** fonts.

A font **not listed** in the following scales (**also any** MONOTYPE, TYPOGRAPH and INTERTYPE font size) can easily be included by measuring the width of the first 26 letters in the precisely calculated width text in DEMEGRAPH 13 (dermeßrechnerfürdasgraphis) - the most commonly used - from the font and the font size to be checked. The measured width is compared to the fixed width of the first 26 or 50, etc. letters in DEMEGRAPH 13.

DEMEGRAPH font weight: (26 letters) in mm	6	7	8	9	10	Point
	31,25	34,8	39	43,5	48	

e.g. 48 mm (10 point) = +0  
(26 letters)

45 mm (10 point) = +6%  
(26 letters)



Setting: Set S 45 under K 48 and read K 6 (+6%) over S 1; in the same setting, read K 28 (28 letters) over S 26 (26 letters). This means that a font being 6% **narrower** would result in **2 letters more** at the same width.

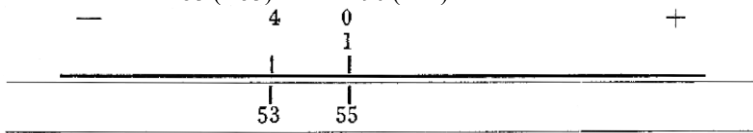
(**Narrower** fonts result in a **larger** number of letters, **wider** fonts result in a **smaller** number of letters.)

Finally, the overleaf table with minus and plus differences compared to the DEMEGRAPH font width allow an **immediate, 100% accurate** reading of the number of letters comparing 1 Cicero to 1 Cicero.

For example, how many letters result from a width of 18 Cicero in Petit vs **Exelsior**? From the following font width key at 18 Cicero width for Petit font (8 points) we see 55 letters; the percentage difference in the percentage scales for Petit vs **Exelsior** (8 points) = 4%.

Number of letters 55 (S 55) under K 1 (+0%) and

Number of letters 53 (S 53) under K 96 (-4%).



If you want to create a **whole scale** of the newly desired Exelsior type - readable with the number of letters from 1 Cicero to 1 Cicero - you bring the slider S 1 (in the middle of the scale) below -4% (K 96) and now read the values reduced by 4% on the basis of the number of letters in the font weight key under Petit (24, 27, 30, 32 etc.) in DEMEGRAPH 13 . (e.g. 24, 27, 30, 32, ... 79, etc.).

23 26 29 31 76

DEMEGRAPH - Font Width Table																																											
Cicero:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
6 Nonp.	30	33	37	42	45	50	53	57	61	65	68	72	76	80	83	87	91	95	99		102	106	109	113	117	121	124	128	132	136	139	142	146	150	154	159	163	166					
7 Kolon.	27	30	33	37	41	44	48	51	55	58	62	65	68	71	75	79	81	85	89		92	95	99	102	105	108	111	115	119	122	125	129	132	135	138	141	145	148					
8	24	27	30	32	35	39	42	45	49	52	55	58	61	64	67	70	73	76	79		82	85	88	91	94	97	100	102	106	108	111	114	117	120	123	126	129	132					
Petit	24	27	30	32	35	39	42	45	49	52	55	58	61	64	67	70	73	76	79		82	85	88	91	94	97	100	102	106	108	111	114	117	120	123	126	129	132					
9 Borgis	21	24	27	30	32	34	37	40	43	46	49	52	54	58	60	63	65	68	71		74	77	79	81	84	87	90	93	95	98	100	102	106	108	111	113	116	119					
10 Korpus	19	22	24	27	29	31	34	36	39	42	44	47	49	52	55	57	59	62	65		67	69	72	74	77	79	81	84	87	89	92	94	96	99	101	103	106	108					
Characters																																											

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