

## NSPS INK ROLLERS

### Inking roller made of Porous and Sintered Nylon

#### Material

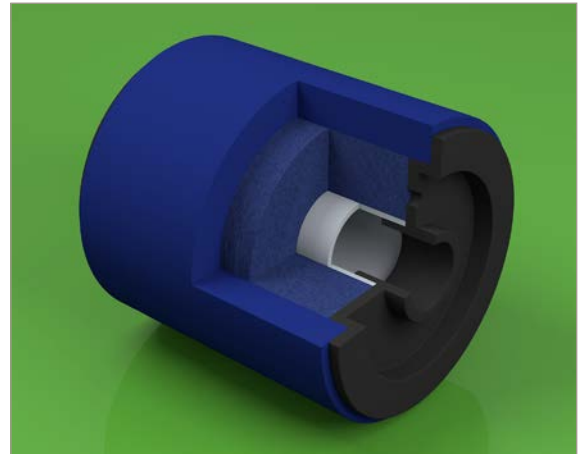
- The special material used for these rollers features:
  - a particularly low specific gravity
  - relatively high mechanical strength
  - an open cell structure which can absorb certain fluids and release them smoothly for a long period of time
- Therefore they are particularly suitable as a body for inking rollers used in high speed printers, for example in the printing of expiry dates on packaging

#### Inking Rollers

- The inking roller in **Special Sintered Porous Nylon** differs from those in rubber or felt, by its hard surface;
- The uniform distribution of the ink is achieved only through the adequate pressure on the body of the roller, used as a filter material
- The advantages obtained are:
  - durable ink delivery
  - no excess impregnation or de-burring of typefaces
  - lack of maintenance
  - print economy

#### Structure & Functionality

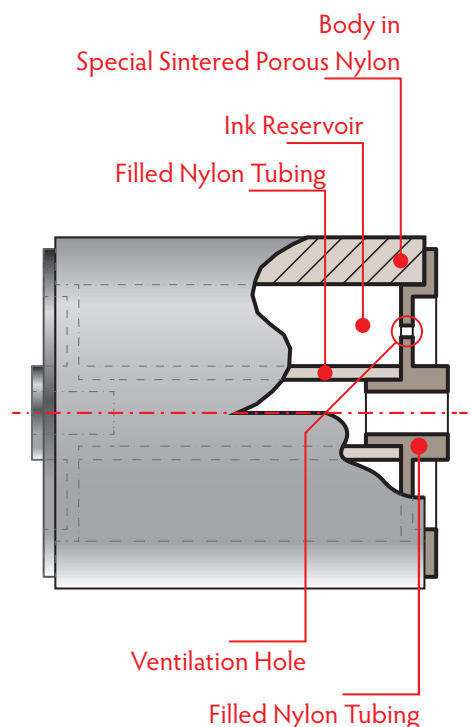
- The inking rollers have within them a reservoir for the ink
- The wall thickness of the **NSPS** body determines the flow of ink from the reservoir to the outer wall; this thickness is adjusted according to the speed and size of the printing and the hardness of the rubber transfer roller in place on the print
- The factors determining a higher or lower intensity of printing are:
  - the pressure applied to the transfer roller  
(recommended approx. 20 g per each mm of roller width)
  - the hardness of the transfer roller  
(a softer rubber roller, min. 40° Shore A, improves the intensity of printing)
  - the amount and position of ventilation holes in the cover  
(rollers mounted in a vertical position have a single hole)



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**Material** - Special Sintered Porous Nylon  
Filled Nylon

**Hardness** - 60 °Shore D



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## NSPS INK ROLLERS

### Use

- Optimal use of **NSPS** rollers is achieved through the use of transfer rollers
- The transfer roller, the paper and the ink must meet certain requirements

### Transfer roller

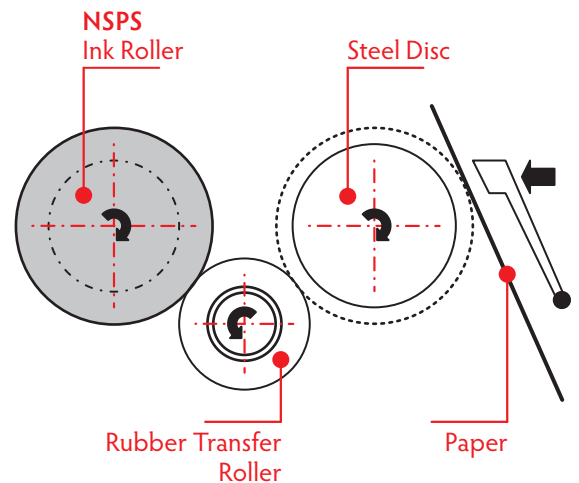
- Steel typefaces can be inked only via a rubber transfer roller; such rubber should be resistant to acid oils, and have a hardness of about 70° Shore A
- Rubber typefaces or nylon clichés are inked directly without the need for a transfer roller

### Paper

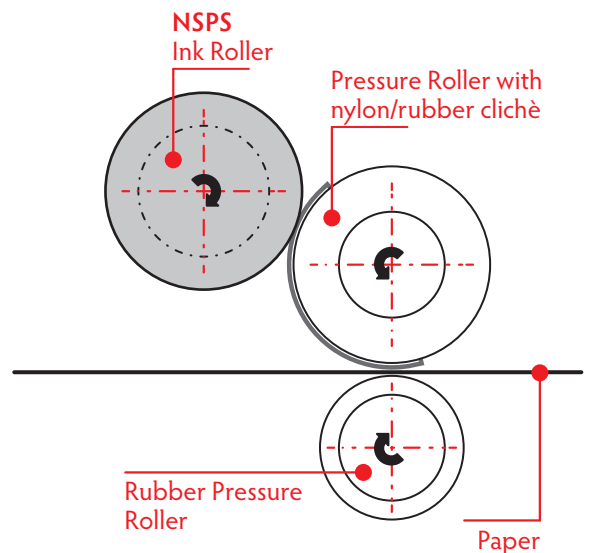
- Good printing results are obtained using an absorbent material, normally paper
- Where the print surface is painted, coated, or treated, relief printing characters with steel are required to allow a slight etching of the surface and to transport the ink from the roller to the paper

### Ink

- The inks used are oily and are available in two colors: black and red
- The special composition of the ink avoids, as much as possible, drying of the surface of the inking roller for long periods
- The following inks are available:
  - Black Standard
  - Special light-resistant black
  - Red Standard
- They can only be used with inks without pigments, since these would block the cellular structure of the body of the **NSPS** inking roller
- In the case of other colours, special soluble dyes in oleic acid are used; the degree of viscosity must be controlled as this is important for the color rendering
- The "light resistance" of these inks is limited and depends on the type of dye used, the level of viscosity and the degree of saturation (printing intensity)
- Our inks are free of heavy metals such as lead, cadmium, chromium IV or mercury



*Installation with Transfer Roller*



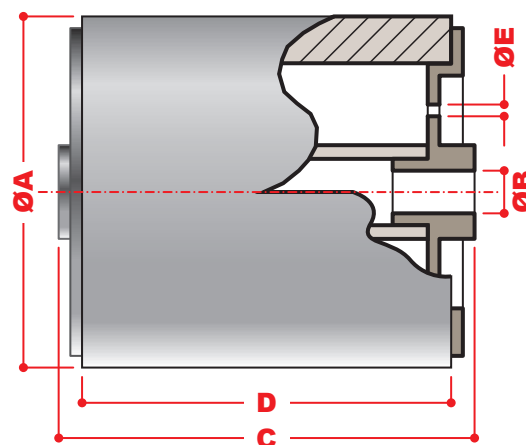
*Installation with Rubber/Nylon Cliché*

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## NSPS INK ROLLERS

### Dimensions Chart

Ø diameter A	Ø diameter B *	length C	length D **	Ink quantity
mm	mm	mm	mm	g
30	10	42	40	12,00
30	6	52	50	16,00
34	10	40	38	12,76
38	10	25	23	9,00
38	10	32	30	14,00
38	10	34	32	14,00
38	10	40	38	14,00
38	10	45	43	18,93
40	10	25	23	10,00
45	10	30	28	16,00
50	10	20	18	12,00
50	10	22	20	14,50
50	10	24	22	18,00
50	10	27	25	18,00
50	10	29	27	24,00
50	10	30	25	17,00
50	10	32	30	24,00
50	10	37	35	29,00
50	10	37	35	28,40
50	10	43	41	34,00
50	10	45	43	34,30
50	10	52	50	46,00



#### Note:

\* Tolerance at B:  $+0,1 \div +0,05$

\*\* Tolerance at D:  $0 \div -0,03$

The diameter Ø E is always equal to 2 mm

### Maintenance

- Is recommended, depending on the use of machinery, at intervals of 1-2 months
- All elements of the printer, such as the rubber transfer rollers, the steel typefaces and pressure rollers with nylon or rubber clichés, should be kept clean and undamaged and eventually replaced when worn
- Any residual glue or paper dust deposited on the external surface of the inking roller, clogging the open cells of the NSPS structure; the inking roller cannot be cleaned from such residues, and must, in any case, be replaced

### Shelf life

- The inking roller, packed in its original condition, may remain stored for 1 year
- Over this period, there may be changes to the degree of ink viscosity and the inking may be lighter

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