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## Minimum Documentation Fiche 2003

International working party for  
**documentation and conservation**

of buildings, sites and neighbourhoods of the  
**modern movement**

composed by national/regional working party of: **Germany**

### 0.1 Picture of building/site



depicted item: "Röntgenröhrenfabrik Müller" / X-ray tube factory Müller, Hamburg, (west elevation)

source: photo collection of PMS, Hamburg (unknown photographer)

date: ca. 1930

	db code
<b>1. Identity of building/group of buildings/urban scheme/landscape/garden</b>	
1.1 current name of building: Philips Medizin Systeme GmbH / Philips Medical Systems (PMS, Hamburg), name of the company	3
1.2 variant or former name: "Röntgenröhrenfabrik Müller" / X-ray tube factory Müller, Hamburg	4
1.3 number & name of street: Röntgenstrasse 22-26	5
1.4 Town: Hamburg	6
1.5 Province/state: Hamburg	7
1.6 zip code: 22335	8
1.7 Country: Germany	9
1.8 national grid reference:	10
1.9 classification/typology: factory and administrative building (head office)	11
1.10 protection status & date: buildings are not individually protected, ensemble listed	12

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<b>2</b>	<b>History of building</b>	
2.1	original brief/purpose: factory for x-ray tubes and administrative building	13
2.2	dates: commission/completion: 1928 / 1929-1930 (construction time: 6 months)	14
2.3	Architectural and other designers: design: Karl Schneider (1892-1945) in collaboration with in-house building/construction department of Philips, Eindhoven, The Netherlands staff member of "architecture firm Karl Schneider": Hartwig Hinze (?-1945), responsible for detailed planning	15
2.4	others associated with building: contracting business: Carl Brandt (Company) House technique and installations: Th. Speckbötzel/Rich. Donat, Mr. Lange (architects firm & engineering consultants)	16
2.5	significant alterations with dates: After WW II: extension of the administrative building, which is not following the original plans. The gate through the building was closed. Due to renovations of the facades of the administrative building the steel bars with their detailed sashes were changed to plastic materials, which made them less sophisticated. They also lost their cobalt blue colour, which was part of the colour design of "Röntgen Müller". The round staircases for fire escape of the factory building were also renovated and lost the cobalt blue colour of the steel bars as well as their detailed sashes by changing the window frames. The frosted glass is now transparent. All together these changes caused the staircases to lose their surface structure which looked like a skin. The top floor of the factory building is changed to office use, a ceiling was therefore inserted, which causes that the light of the lantern cannot reach the whole top floor anymore.	17
2.6	current use: still in use for administration, production and workshop of Philips (PMS)	18
2.7	current condition: good condition (facades need some repair work due to cracks below the sills)	19

<b>3</b>	<b>Description</b>	
3.1	general description: At the time, the X-ray tube factory Müller, Hamburg was built, the company "Müller" had already been taken over by Philips in Eindhoven/The Netherlands. Philips had an extensive in-house building department but contracted an external architect. Thus Karl Schneider, a well-known Hamburg architect of the Modern Movement, was assigned. An important reason for this decision was that Schneider was very familiar with Hamburg's building authorities. Philips as a foreign enterprise wanted to benefit from this advantage; a brisk, uncomplicated completion of the building project was desired, inter alia because of economic reasons. However, a comparison of Schneider's draft for the X-ray tube factory with the buildings of Philips in Eindhoven shows that they were quite on the same wavelength also architecturally. The plant is u-shaped, the factory part has an east-west orientation, the administrative part faces north-south, where the representation rooms are oriented to the south and the work spaces face north. The original plan was never completely implemented. Just a quarter of the factory and half of the administrative building were built in the first phase of construction, before the Great Depression. The factory building looks much more ordinary, the office building a much more representative design, due to two rectangular main staircases and two round, expressive staircases for fire escape.	20
3.2	Construction:	21

	Buildings of reinforced concrete skeletons infilled with cell concrete, administration building following the Hamburg construction specification with clinker lining.	
	Factory: The bearing skeleton lies in the front level. This is justified with the owners demand to receive a completely smooth wall inside the factory in order to correspond to the high hygiene requirements (among other things avoidance of dust formation) for the production flow. The pillars taper upward.	
	The upright formworks, causes horizontal stripped pattern of the fairfaced concrete. Glass elements of the facade: $\frac{3}{4}$ frosted glass and $\frac{1}{4}$ transparent.	
3.3	Context	22
	The plant is located near to the airport in Hamburg-Fuhlsbüttel, already existing at that time. Fuhlsbüttel was at that time a district with still big areas of green. A big gasholder by Fritz Schumacher (1909, demolished, presumably in the 1960s) and some housing was also located there.	
<b>4</b>	<b>Evaluation</b>	
4.1	Technical	
	The construction of the factory (upward tapering skeleton) is quite interesting and innovative, especially in connection with the hygiene requirements.	
	Another interesting point is, that a lot of factories of the Modern Movement were right from the start designed to allow later extensions of the production and office facilities. Factories that were built in the 19th and early 20th century usually had no provisions for expansions of the building. Instead, in most cases, apparently haphazard outbuildings and annexes were added. But in the example here, the architect had planned a symmetrical, U-shaped plant. Only one section of the "U" was actually built, which was constructionally intended to be extended in horizontal direction (see pictures).	23
4.2	Social	
	Philips was an employer with a pronouncedly social attitude to its personnel; this reflects in the working conditions, for instance a canteen with sun terrace and good sanitary equipment as well as good lightening.	24
4.3	Cultural & Aesthetic	
	The X-ray tube factory is an interesting example for the integration of the building in the corporate identity concept of the company. For instance the building is used for the letterhead; therefore the existing buildings were altered in order to obtain a better visual effect. Here we can notice a clear difference to the 19th-century representations, where the plants were shown from the bird's perspective and the pictures were often very true to detail. The use of the factory building in the marketing concept, partially sharpened to a point, may be interpreted as an identification of the enterprises with the Modern Movement, even if just for advertising reasons, following the spirit of innovation as a corporate image.	25
	The X-ray tube factory became a landmark when seen from the air and approached from the Hamburg-Fuhlsbüttel airport, particularly because of its impressing skeleton effect in the dark, which plays intentionally with the theme of x-ray photographs.	
4.4	Historical: Karl Schneider was a social democratic architect of the Modern Movement, who had to leave the country forced by the Nazis. Röntgenröhrenfabrik Müller is not only his biggest but also his last work in Germany.	26
	"Röntgenröhrenfabrik" is also an important reference for the triumphant progress of the innovative medical invention of the x-ray tube, which led to a new up to date factory building.	
4.5	general assessment :	27
	"Röntgenröhrenfabrik Müller" is a great, vital piece of the Modern Movement of the 20/30's,	

integrated in a huge concern, which is flexible and able to react to changing production processes, shown by the fact that it is still in use.

It also makes us aware of the economic integration within Europe in the early 20's and 30's, which had also influence of the architectural expression and exchange of the Modern Movement.

## 5 Documentation

- 5.1 principal references: 28
- Ostermann, I.: Fabrikbau und Moderne, Konzeptionen und Gestaltungsformen dargestellt an Beispielen aus Deutschland und den Niederlanden des Interbellums des 20. Jahrhunderts, Dissertation TU Delft, Delft/Hildesheim 2006 (detailed analysis of the building with consideration of all aspects in chapter 2, also detailed list of references; forthcoming as book publication by Gebr. Mann Berlin, 2009)
  - Fries, Heinrich de: Karl Schneider, Bauten. (serial Neue Werkkunst), Berlin/Leipzig/Wien 1929 / Reprint Berlin 2001: Jaeger, Roland (ed./epilogue)
  - Koch, Robert; Eberhard Pook (ed.): Karl Schneider, Leben und Werk (1892-1945), Hamburg 1992
  - Spörhase, Rolf: Karl Schneider. Röntgenröhrenfabrik in: Moderne Bauformen 1932, vol. 18, p. 491-499 (article)
- 5.2 visual material attached: 29
- historical material: west elevation, site plan, perspective, interior administration, elevation with possibility of annexation, west elevation with x-ray effect at night, arial view (ca. 1980), current condition factory building (2001)
- 5.3 rapporteur/date: Dr. Ingrid Ostermann / June 2008 30

## 6. Fiche report examination by ISC/R

name of examining ISC member:

date of examination:

approval:

Wp/ref. no:

NAI ref. no:

comments:

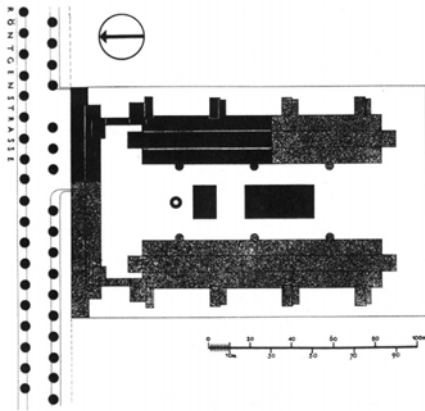
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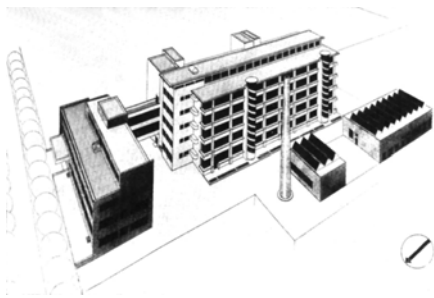
## Visual material: Röntgenröhrenfabrik Müller" / X-ray tube factory Müller, Hamburg



2. depicted item: historical site plan

source: Photo collection of PMS, Hamburg (unknown photographer)

date: ca. 1930



3. depicted item: perspective

source: Moderne Bauformen 1932, vol. 18, p. 491-499 (Ernst Scheel)

date: ca. 1930



4. depicted item: interior administration with glazed partitions

source: Moderne Bauformen 1932, vol. 18, p. 491-499 (Ernst Scheel)

date: ca. 1930

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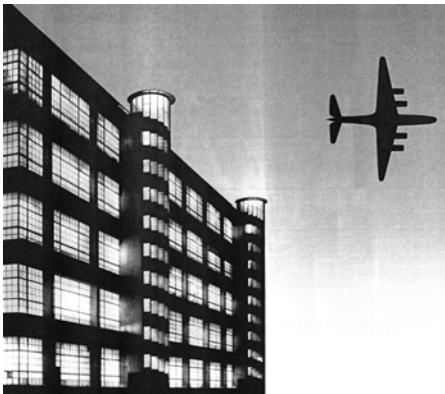
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5. depicted item: elevation with possibility of annexation (south elevation)  
source: Moderne Bauformen 1932, vol. 18, p. 491-499 (Ernst Scheel)  
date: ca. 1930



6. depicted item: west elevation with x-ray effect at night (unknown photographer)  
source: Todtmann, Heinz: So sehen und wissen wir mehr (booklet), C. H. F. Müller A.G. (Hrsg.),  
Hamburg s.a. [ca. 1955], PMS Archive  
date: ca. 1955

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7. depicted item: arial view of the extensions of the company Philips in Hamburg, at the left  
"Röntgenröhrenfabrik Müller" by Karl Schneider  
source: Fehr, Werner: C. H. F. Müller ...mit Röntgen begann die Zukunft. Überliefertes und  
Erlebtes, Hamburg 1981, (unknown photographer)  
date: ca. 1980



8. depicted item: current condition (west elevation)  
source: Ingrid Ostermann  
date: 12/2001

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