

**The new Masterpact NT and MW : innovation
at the heart of the electrical distribution
business**

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November 24, 1999**

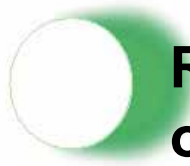
Merlin Gerin

Modicon

Square D

Telemecanique

Schneider
 **Electric**



Research and development are the cornerstones of the Schneider 2000+ project.

- **Growth: renew our product and service offering and accelerate time to market.**
- **Cost reductio : develop products twice as fast in order to contain costs.**
- **Emphasis on leadership and empowerment: respect deadlines and adopt quicker working methods.**



Investing in innovation is an absolute priority for Schneider Electric

- **More than 3 500 engineers and technicians work in our development centers in France, Europe, the United States and Asia.**
- **400 people in our research laboratories.**
- **50 research laboratories.**
- **FRF 2.6 billion in 1998, or 5.2% of sales**
(11th place in ranking of French companies*).
- **In 1999/2000 12 product lines will be completely renewed, representing 20% of sales.**



Schneider Electric is a market leader in Low Voltage

It leads the field in the manufacture of 600 A to 6,300 A low voltage switchgear and equipment

1	Schneider Electric
2	Mitsubishi
3	ABB
4	Siemens
5	Eaton





An indisputable leadership position. (1998 key figures)

➤ **Low voltage power circuit breakers:**

- **Sales: 5 billion francs,**
- **Market share: 25% of the global market,**
- **Customers: panel builders, OEMs, contractors, large end-users.**

➤ **Low voltage power switchboards:**

- **Sales: 5 billion francs,**
- **Market share: 10% of the global market,**
- **Customers: contractors and large end-users.**



A new product and service offering to strengthen our no.1 position in Low Voltage Power.

- **Schneider is renewing its power circuit breaker and switchboard offering up to 6300 A**
 - **In order to provide even more reliable and effective solutions in low voltage electrical distribution**
 - **in the electrical distribution and motor control markets**
 - **To ensure operating safety, continued service, information management and optimized investment**
 - **As well as traditional benefits such as plug-in facility, selectivity and maintainability, it will also offer built-in communication and measurement functions in the new optimized sizes.**
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Masterpact is a strategic low voltage power project for Schneider Electric.

- **It is the largest development project ever conducted with teams from around the world.**
- **Product development time: 42 months to replace 9 products with a single product line.**
- **This project involved a 1 billion franc investment.**
 - 700MF in development and 300MF in fixed investment.
- **Objective : 50% growth in sales for these product lines in 5 years.**
 - 8.5% annual growth as compared to 2 to 3 % annual market growth.
 - Masterpact NT - NW : 1.9 billion.
- **Major reduction in production costs: 25%.**



The new Low Voltage Power range

Circuit breakers

Switchboards and panel systems

Standards

ANSI, UL, IEC

IEC

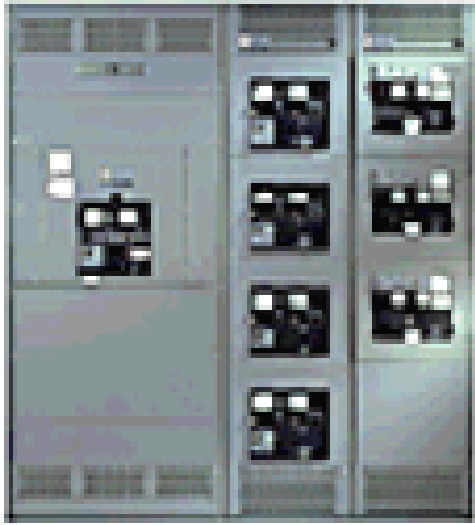
UL , ANSI

New ranges





Innovation means involving customers at the product specification stage



➤ Smaller switchboards:

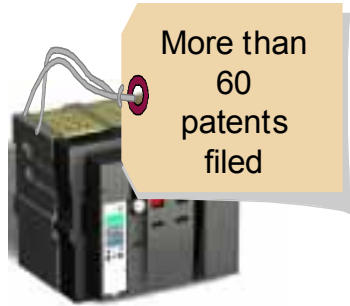
- ⇒ The smallest 1600A circuit breaker in the world,
- ⇒ A 4000A the same size as the present 3200A,
- ⇒ Much reduced electrical clearance,
- ⇒ Unequalled breaking capacity performance worldwide : 200 000 A with no fuse !

➤ A simpler life for customers:

- ⇒ Very short delivery times (local adaptation),
- ⇒ Products can be adapted and modified on site,
- ⇒ Services save time and money throughout the product 's service life : simplified catalogues, maintenance assistance, retrofit, etc.



Innovation means developing new functions....

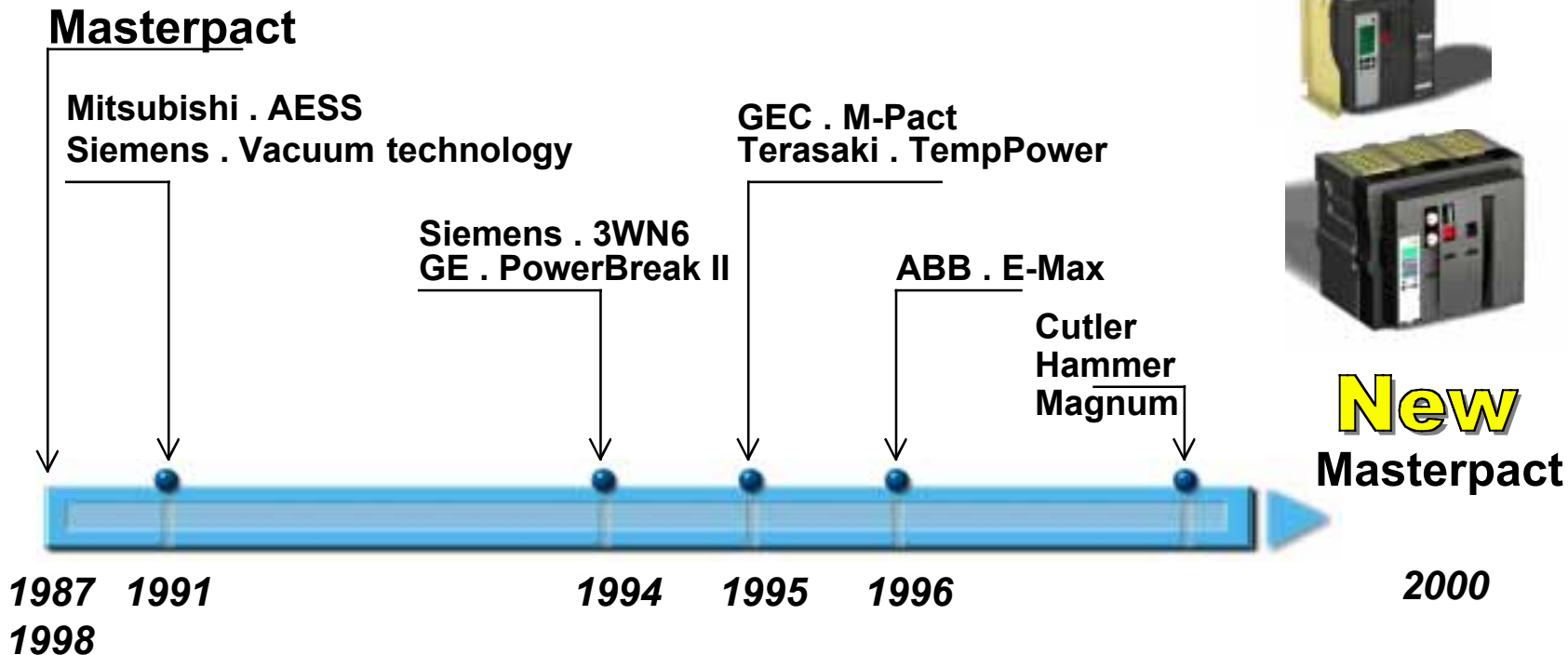


➤ **Micrologic: a new generation of control units.**

- ⇒ **New protection, measurement and signalling functions integrated.**
- ⇒ **Electrical distribution system monitoring open to all.**
- ⇒ **Data transmission to optimize power consumption and provide preventive and predictive maintenance.**



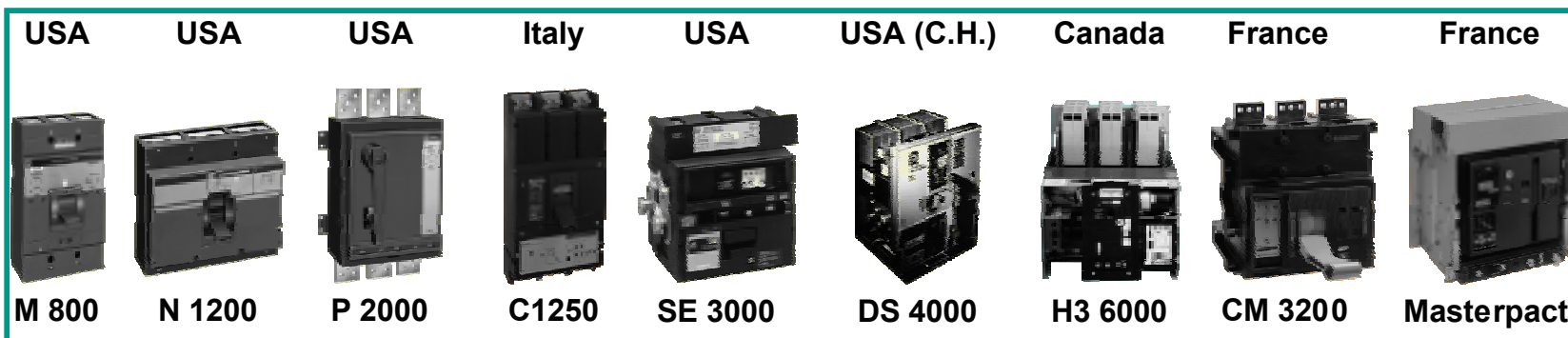
Innovation means staying ahead of competition by developing a unique, global product range.



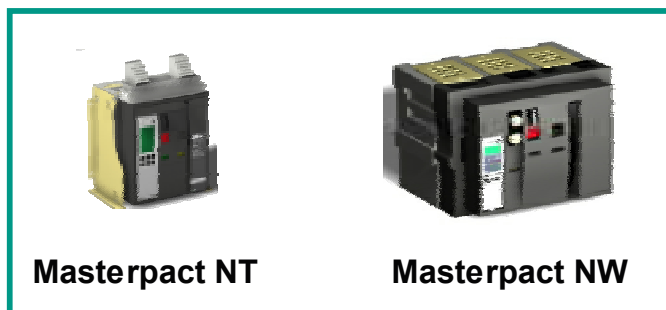


Innovation means streamlining the global offering to fulfil all standards requirements.

1996: 9 ranges and more than 12,000 components



2005 : 2 ranges and less than 2,000 components



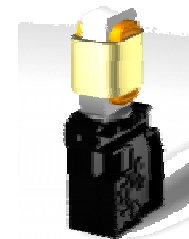
Innovation means optimization through volume reduction and the miniaturization of auxiliary devices and accessories.



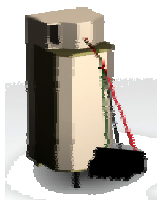
Control unit



Speed reducer

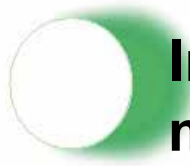


Control switch



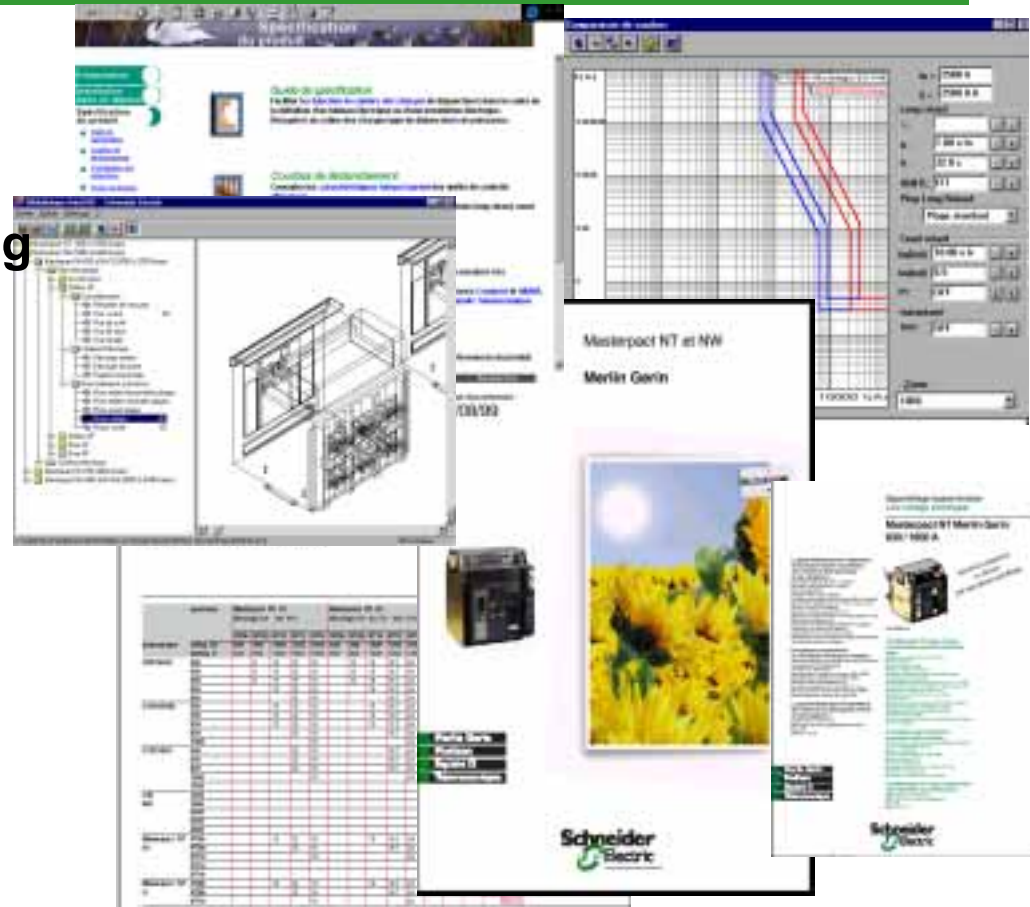
ON/OFF switch block





Innovation means providing customers with many labor-saving tools.

- Autocad library.
- Software to help in choosing and developing networks.
- Comprehensive technical documentation.
- Extranet : www.lvproducts.schneider-electric.com



An international team behind this new offering.



- **250 engineers and technicians in Europe and the United States.**
- **60 patents filed.**
- **2 development centers : 1 in Europe and 1 in the United States.**
- **5 master plants : 4 in Europe and 1 in the United States.**
- **30 assembly centers around the world.**
- **ISO 9001 organization.**
- **A product line adapted to every standard : IEC, UL, ANSI, JIS.**



New product lines.

➤ **Electrical distribution :**

Commercial

- Masterpact,
- Enclosures,
- Medium voltage : vacuum switchgear and measuring instruments

Residential

- Modular circuit breakers for the Chinese market.

➤ **Industrial control and automation :**

- Altivar 28 (renewal of under 15 KW range),
 - 0 to 32 A contactors,
 - Man-machine interface : security modules
 - Intelligent relays,
 - Num offering revamped,
 - Motor speed drive (motor + speed drive),
 - PLCs,
 - Transparent factory .
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