

Nouvelles brèves

ment accessibles à un nombre croissant de physiciens.

En effet, la solution moderne pour fournir des informations à jour rapidement et efficacement consiste à utiliser l'ordinateur et, grâce au développement des réseaux en Europe et aux Etats-Unis, les utilisateurs dans un grand nombre d'universités et de laboratoires (dont le CERN) ont la possibilité, à partir de leur terminal, d'obtenir les données dont ils ont besoin.

L'initiative d'établir des bases de données informatiques sur les réactions en physique des hautes énergies a été prise il y a plus de dix ans à l'Université de Durham (RU) conjointement avec le groupe de Berkeley. Ce programme s'est développé et, maintenant, il mobilise également des physiciens au CERN, à DESY et à Serpoukhov. Ces bases de données sur les réactions contiennent des informations sur les distributions de diffusion et les fonctions de structure obtenues dans une grande diversité d'expériences de physique des particules: diffusions hadroniques à deux corps, hadroniques inclusives et leptoniques inclusives, processus électron-positon, etc. Ces informations, ainsi que les données plus courantes sur les propriétés des particules et les détails et propositions d'expériences, résident sur les ordinateurs centraux au Laboratoire Rutherford-Appleton et au SLAC (Stanford). L'implémentation est en cours pour permettre d'extraire les données directement à partir du nouveau système CMS du CERN. Les utilisateurs travaillant dans les instituts qui ont accès à ces machines soit directement, soit par l'intermédiaire de réseaux peuvent obtenir rapidement des informations détaillées sur une multitude de données en physique des particules.

Comme sur tous les systèmes facilement utilisables, une assis-

tance en ligne ("HELP") guide l'utilisateur ne connaissant pas bien la marche à suivre. On peut néanmoins obtenir des guides imprimés et des informations supplémentaires sur la base de données (HEPDAT) en s'adressant à Mike Whalley, Physics Dept, Durham University, DH1 3LE, RU.

Apprenant qu'il partageait avec Sheldon Glashow et Steven Weinberg le prix Nobel de physique de 1979 pour l'unification des forces électromagnétique et faible, Abdus Salam (à gauche) se rendit aussitôt au CERN pour lever son verre à la santé de Paul Musset de la collaboration Gargamelle qui avait découvert le courant neutre en 1973, montrant ainsi que la nouvelle théorie était sur la bonne voie. Le 4 septembre dernier, Musset devait décéder dans un accident de montagne.

(Photo CERN 396.10.79)

Paul Musset (1933-1985)

Le 4 septembre, Paul Musset est décédé dans un accident de montagne dans les Alpes françaises. Son nom restera toujours associé à la découverte capitale au CERN, en 1973, du courant neutre de l'interaction faible, observé dans des interactions neutrino à l'intérieur de la chambre à bulles à liquides lourds Gargamelle. Outre sa participation à la découverte elle-même, Musset avait joué un rôle déterminant dans la grande collaboration qui avait construit ce puissant détecteur. Ensuite, il s'était lancé dans une patiente recherche des monopôles magnétiques et, cette année même, son plus récent projet, une ambitieuse expérience d'émulsions, avait porté ses fruits en donnant pour la première fois des traces directement observables de particules porteuses de beauté. Homme charmant et modeste, il était aussi un enseignant et un administrateur de talent et un musicien doué.



Edward A. Knapp, nouveau président de l'Association des universités pour la recherche.



la croix de commandeur de l'Ordre du mérite de la République fédérale d'Allemagne par le président de ce pays, Richard von Weizsäcker. La croix a été remise par le chargé d'affaires Rolf-Eberhard Jung, au cours d'une brève cérémonie à l'ambassade de la RFA. Cette décoration a été décernée au professeur Koshiba pour son activité en faveur de la coopération bilatérale en physique des hautes énergies.

Le prix John G. Rutherglen, fondé par l'Université de Glasgow, finance une bourse attribuée chaque année à un étudiant de troisième cycle en physique expérimentale des particules de l'une des universités autrefois en liaison avec le synchrotron à électrons NINA du Laboratoire de Daresbury (Royaume-Uni). La bourse pour 1985 a été attribuée à Paul Hill, de Manchester.

Médailles Dirac

En souvenir des liens particuliers qui existaient entre le regretté Paul Dirac et le Centre international de physique théorique à Trieste, ce dernier a institué des médailles Dirac, accordées chaque année le 5 août (anniversaire de ce physicien) pour des contributions à la physique théorique. Cette année, c'est Y. Zeldovitch, de l'Institut de recherche spatiale de Moscou, qui est honoré pour ses contributions de grande portée à l'astrophysique relativiste, particulièrement dans les théories des objets compacts et de l'évolution cosmique, tandis que E. Witten, de Princeton, reçoit sa médaille pour ses contributions stimulantes à la théorie quantique des champs, en particulier pour les implications de nouvelles espèces d'anomalie.

E.A. Knapp à la direction de l'URA

Edward A. Knapp a été élu président de l'Association des universités pour la recherche (URA), succédant ainsi à H. Guyford Stever, président depuis mars 1982. Regroupant 56 universités, cette association exploite le Laboratoire de l'accélérateur national Fermi pour le Ministère de l'énergie américain et assiste ce dernier dans la gestion de l'effort national pendant la phase de recherche, de développement et de conception du projet de l'accélérateur supercollisionneur supraconducteur.

Avant son entrée à l'association, E. A. Knapp était directeur de recherche au Laboratoire national de Los Alamos. Avant de revenir à Los Alamos en août 1984, il était directeur de la National Science Foundation à Washington.

QRF japonais

Le grand quadrupôle radiofréquence (QRF) de l'Institut pour les études nucléaires, Tokio, a récemment accéléré son premier faisceau de protons. Fonctionnant à 100 MHz, le préaccélérateur de 7,25 mètres a porté sans difficulté le faisceau à 800 keV par nucléon. Les travaux de mise au point progressent activement en vue de la construction du Numatron, l'accélérateur d'ions à haute énergie.

Réunions

Le VIII^e Congrès international sur la physique mathématique se tiendra à Marseille du 16 au 25 juillet 1986. Pour renseignements, s'adresser au Secrétariat du Congrès IAMP 1986, CPT-CNRS Luminy, case 907, 13288 Marseille Cédex 9, France.

Personnalités

Klaus Berkner a été nommé directeur adjoint et chef de la division Accélérateur et recherche sur la fusion au Laboratoire Lawrence de Berkeley, alors que James Symons, également nommé directeur adjoint, devient chef de la division Science nucléaire.

Masatoshi Koshiba, directeur du Centre international pour la physique des particules élémentaires à la Faculté des sciences de l'Université de Tokio, s'est vu décerner

Un cours avancé sur les techniques et les concepts de la physique des hautes énergies se tiendra du 19 au 30 juin 1986 dans l'île de Sainte-Croix (Iles Vierges américaines, Petites Antilles) et sera le quatrième de la série.

Parmi les sujets traités figureront les détecteurs, les machines, les résultats et les idées théoriques. Ce cours est prévu pour une soixantaine de jeunes expérimentateurs. Pour informations, s'adresser à T. Ferbel, ASI-1986, Dept. of Physics, University of Rochester, NY 14627, USA.

La section Particules et champs de la Société de physique américaine a publié les Actes de l'étude d'été 1984 sur la conception et l'utilisation du super collisionneur supraconducteur, étude qui s'est tenue à Snowmass, Colorado. Un nombre limité d'exemplaires est encore disponible. Les demandes doivent être adressées à: The Publications Office, Fermilab, P.O. Box 500, M.S. 107, Batavia, IL 60510, U.S.A.

Des Nobel à la table ronde

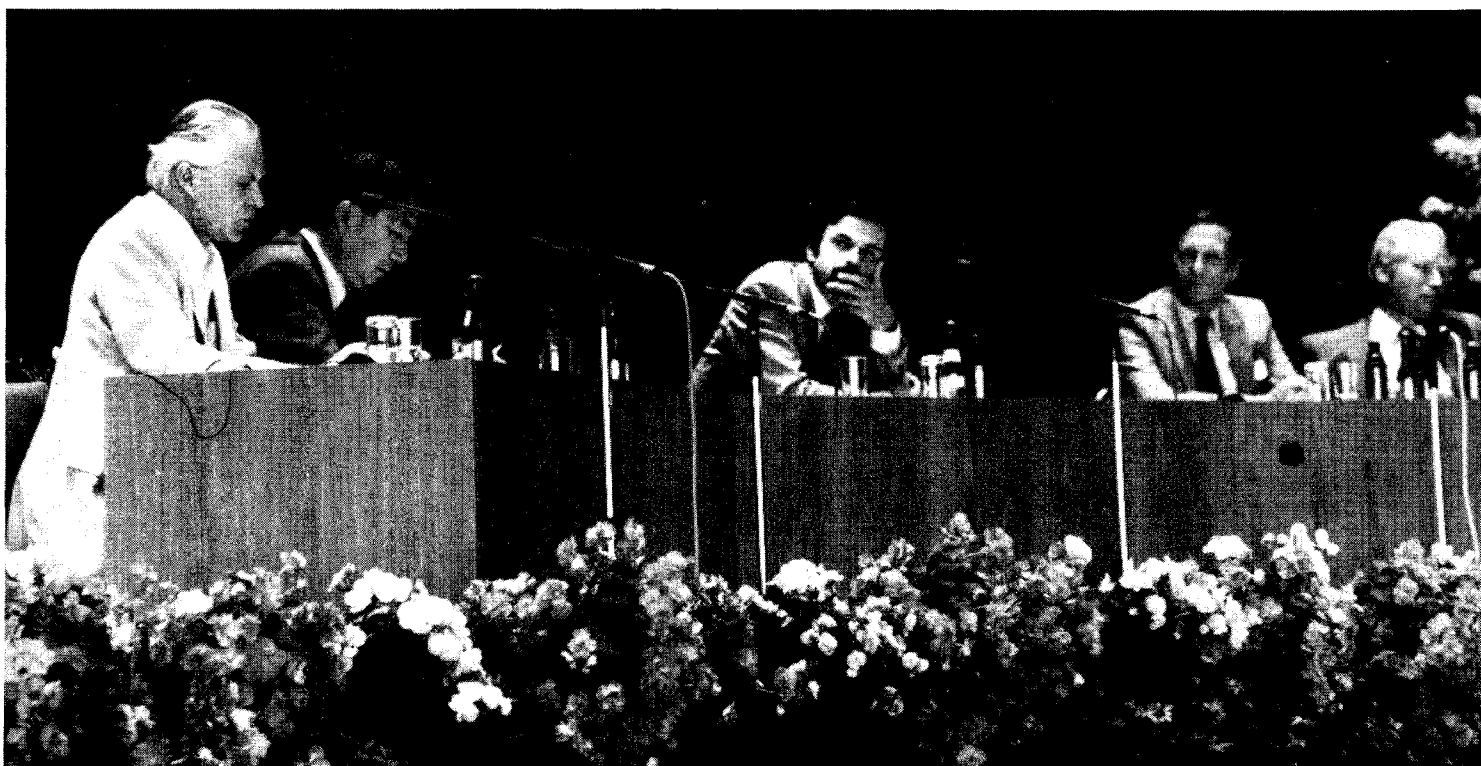
Un des grands moments de la traditionnelle rencontre de lauréats du prix Nobel à Lindau (RFA) a été une table ronde, présidée par le théoricien Harald Fritzsch, rassemblant les physiciens Rudolf Mössbauer (1961), Sam Ting (1976), Steven Weinberg (1979) et Simon van der Meer (1984); cette discussion a été suivie par plus de 400 personnes.

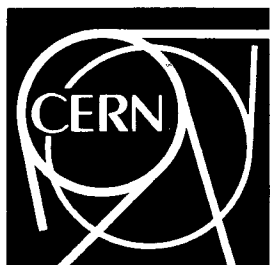
Le débat avait pour thème l'état actuel de la physique des hautes énergies et l'évolution possible dans les domaines de la théorie, de la technologie et de l'expérimentation. On peut s'interroger sur la nécessité de pousser jusqu'à 10^{18} GeV pour trouver quelque chose de nouveau. En revanche, si les énergies doivent franchir de nouvelles limites, des techniques nouvelles sont requises et, chemin faisant, nos connaissances s'enrichiront grâce à des détecteurs plus sensibles et plus précis.

On envisage de plus en plus l'établissement de conventions internationales pour assurer le financement des grandes machines proposées. La croissance des accélérateurs s'accompagne de celle des expériences, dont la conception, l'installation et l'exploitation s'étendent sur de plus longues périodes. Ce pourrait être une source de difficultés pour de jeunes physiciens désireux d'entrer dans la carrière mais, comme toujours, les obstacles qui rebutent certains sont pour d'autres des défis à relever.

Rencontre de lauréats du prix Nobel à Lindau. De gauche à droite, Rudolf Mössbauer, Sam Ting, Harald Fritzsch (président), Simon van der Meer, Steven Weinberg.

(Photo R. Böcher)





7.10 – 11.10.85

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Organized by the Italian Institute for Foreign Trade (ICE)

About 40 firms will present

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Tel. 011/33 59 861 - 336 502

Production line:

Small and medium series of turned parts-
Thread rollings

Export sales organization by METALLIA. Realizza-
zioni metal-meccaniche Avanzate-Consorzio tra
Imprese.

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Tlx. 220 286

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Area Manager

Exhibited products:

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ATLA S.r.l.

Via Padana Inferiore, 44

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Tel. 011/94 72 346

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Tanks and parts for vacuum-Welding and brazings
under vacuum-Electroerosion

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zioni metal-meccaniche Avanzate-Consorzio tra
Imprese.

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Tlx. 220 286

Roberto Seni, Ettore Gandini

Area Manager

Exhibited products:

Vacuum tank, flanges and honeycombs

BOCONSULT S.r.l.

Via Vizzani 72/G

40138 BOLOGNA

Tlx. 511 238 DAVERI I

Tel. 051/344 544 - 344 975

Production line:

Special purpose microprocessor based systems for
automation and control. Data communication
equipment for local area network.

Paolo Sgarbi, General Manager

Exhibited products:

A fast local area network for serial lines M3BUS
80286 Board. Single board computer for MODIAC
automation system.

BOSCHIS & C. S.n.c.

Strada del Francese, 152

10156 TORINO

Tlx. 221 109 rif 966

Tel. 47 01 996 - 47 01 997

Production line:

Office furniture.

Edoardo Boschis, Commercial Manager

Exhibited products:

Office furniture

CAVICEL S.p.A.

Fabbrica conduttori elettrici

Via Gabriele D'Annunzio, 44

20096 - PIOLTELLO (MI)

Tlx. 340 146 CELCAV

Tel. 02/92 66 018 - 92 66 669

Production line:

Design and production of special electrical cables
realized with thermoplastic, elastomeric, fluoropo-
lymer materials, with tape or textile insulation.
Cables for instrumentation, control, data transmis-
sion. Fire-resistant cables «Firecel» with low
smoke emission and halogen free. Cables for
mobile application. Fiber optic cables.

Dario Ratti, Sales Manager

Exhibited products:

Safety cables Firecel.

CEAT CAVI

L.go Regio Parco, 9
10100 - TORINO
Tlx. 221 603 CEAT I
Tel. 011/26081

Production line :
Power-telecommunication and control cables.
LV-MV and HV power cables. Radiation resisting
cables. Non fire propagating cables. Non toxic and
low smoke gas evolution cables for special applica-
tions. Optical fiber cables. Cables accessories.
Export sales organization by
CABLEXPORT S.p.A.
Via Vespucci, 2
20124 MILANO
Tel. 02/85 351. Tlx. 314 018 PIRECX I
Area Manager for Europe : Mr. A. Decorato
(phone 02/853 54 508)

Exhibited products :
Enlarged slides illuminated panels

CEIS S.r.l.

Via Saccardo, 39
20134 - MILANO
Tlx. 334 357 ALBMI
Tel. 02/95 22 061

Production line :
Transformers. Switchboards. Inverters. Battery
charger. Loose electrical components.
Roberto Bianchi, Area Manager

Exhibited products :
UPS System : Battery charger.
Loose electrical Components

C.P.C.E.N. - Cons. Piemon. Electro Nuclear Manufacturers

C.so G. Ferraris, 70
10129 - TORINO
Tlx. 221 109 API TO
Tel. 011/505 941

Production line :
Components, Carpentry, Installations, electro-me-
chanics, other working.
Gaetano Saccà, General Manager

Exhibited products :
Enlarged slides panels

The C.P.C.E.N., Consortium of Piemontese Electro-
Nuclear Manufacturers, was born in December
1984 as a spontaneous group of 16 small and
medium size enterprises whose mutual aim is to
get important orders both from the economic and
the technological point of view. The main purposes
of the consortium are : the promotion all over the
world of the member companies ; the guarantee of
the quality in the supplies to the end users.

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works - carpentry.

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ments - control panels.

ELFIN - Transformers - electric welders - robots -
push-button panels.

F.LLI CUSINO - Cabs and manels for electric
equipments - carpentry.

GRI-CA - Prefabricated electric cells - carpentry
for electric plants.

ILMAS - Finishing machining.

ITIC - Structural steelworks - carpentry - plant
engineering.

JURA - Travelling cranes - carpentry.

MEVIS - Industrial pipe's plant - plant engineering
and setting up.

MICROELETTRICA - Medium voltage transforma-
tion cabs - electric panels and drivings.

OSU - Machining of components and tools of high
accuracy.

RE.MAC.UT - Industrial special equipments - over-
haul of machine tools.

SIAT - Exhaust. air conditioning, ventilation plants.

S.V.E.A.T. - Varnishes for industry and building.

TESSILTRECCE BOZZOLA - Special electric shea-
ted cables for high temperatures.

VAGNONE E BOERI - Machine tools - industrial
equipments - second level chemistry.

DEMO ARMADI RACKS

C.so Lombardia, 52

10099 - S. MAURO TORINESE

Tlx. 213 279

Tel. 011/244 352/6/9

Production line :

International standard 19" size cabinets, Car baskets and containers with international DIN 41494 standards and consoles entirely made in aluminium.

Luigi Demo, Commercial Manager

Exhibited products :

Racks cabinet and card basket and containers.

DUE M.C. S.n.C.

Via Bard 43/2

10142 - TORINO

Tlx. 220 286

Tel. 011/70 16 72 - 70 71 800

Production line :

Equipment, prototypes and mechanical components of medium and small series.

Export sales organization by METALLIA. Realizzazioni metal-meccaniche Avanzate-Consorzio tra Imprese.

C.so Orbassano, 249

10137 TORINO

Tel. 011/32 31 12

Tlx. 220 286

Roberto Seni, Ettore Gandini
Area Manager

Exhibited products :

Flanges, rings and shafts

EASY S.p.A.

Via Monti, 48

10126 - TORINO

Tel. 011/65 08 507

Production line :

Caldorobot, computerized control of heating, equipment of buildings, it gives comfort, energy savings and expenses shavings.

Roberto Olivo, Marketing Manager

Exhibited products :

Enlarged slides illuminated panels.

E.E.D. S.r.l.

Via Brandizzo, 178

10088 VOLPIANO (TO)

Tlx. 214 489 EED TO

Tel. 011/98 84 666

Production line :

Magnetic cassette units ECMA 34 (DRU). Design of electronic items witch assembling and testing.

Gino Genta, General Manager

Exhibited products :

Security access control, Magnetic cassette units ECMA 34.

ELEMER S.r.l.

S.S. 407 BASENTANA KM. 75,500

75010 - BORGO MACCHIA FERRANDINA (MT)

Tlx. 812 564 IMPES I

Tel. 0835/7 57 181

Production line :

Instruments control panel, power center, motor control center, synoptic control panel, electronic systems.

Antonio Calciano, General Manager

Exhibited products :

Instruments control panel.
Electronic systems.

EURO-BIT S.p.A.

Via G. Armellini, 33
00143 - ROMA
Tlx. 616 264
Tel. 06/59 21 541

Production line :
Telecommunications, computer graphics, nuclear
medicine.
Luciano Patacchiola, Sales Manager

Exhibited products :
Printed boards for general computing purpose,
real-time signal processing, IEC 625 bus interfa-
cing. Graphics packages applications for cartogra-
phy 3D modelling working on HP1000A and
apollo workstations.

FIL-PA

Via Caraglio, 132/11
10141 - TORINO
Tlx. 210 443 CALIER
Tel. 011/383 263

Production line :
Medium and high series of small turned parts.
Export sales organization by METALLIA. Realizza-
zioni metal-meccaniche Avanzate-Consorzio tra
Imprese.
C.so Orbassano, 249
10137 TORINO
Tel. 011/32 31 12
Tlx. 220 286
Roberto Seni, Ettore Gandini
Area Manager

Exhibited products :
Small turned parts.

FIMS - Fabbr. Ital. Molle a Spirale

Via Frejus, 16
10092 - BEINASCO
Tlx. 220 286
Tel. 011/34 90 586

Production line :
Springs in Steel wire and strip.
Export sales organization by METALLIA. Realizza-
zioni metal-meccaniche Avanzate-Consorzio tra
Imprese.
C.so Orbassano, 249
10137 TORINO
Tel. 011/32 31 12
Tlx. 220 286
Roberto Seni, Ettore Gandini
Area Manager

Exhibited products :
Springs.

GROUND di Martinelli Ugo e Papotti Daniele

Via Greca, 31
41100 - MODENA
Tlx. 226 376 GROUND I
Tel. 059/31 00 89

Production line :
With the use of computers, control of light system,
production of litted signs and of graphic panels that
both write.
Ugo Martinelli, Sales Manager

Exhibited products :
Luminous panels.

ITALCOPPIE S.n.c.

Via Diritta, 9
26100 - CREMONA
Tel. 0372/43 23 11 - 43 40 96
Tlx. 312 819 CR EXP IC

Production line :
Metal sheathed mineral insulated thermocouples and rtd (Also in smaller diametres) manufactured under controlled quality system.
Canzio Noli, Sales Manager

Exhibited products :
Thermocouples with external connectors.
Sheathed thermocouple with MgO insulation.

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Strada del Corriere, 27
15060 - SANT'ANTONIO DI BASALUZZO (AL)
Tlx. 215 014 IIV SAB
Tel. 0143/48 491/2

Production line :
Ball valves, Butterfly valves, Diaphragm valves, Check valves.
Roberto Roveta, General Manager

Exhibited products :
Manual butterfly valve wafer type ASA300 size 6" with metallic seal. Pneumatic butterfly valve type ASA300 size 6" with seal in PTFE. Ball valve.

LARES COZZI S.p.A.

Via Roma, 88/92
20037 - PADERNO DUGNANO (MI)
Tlx. 330 119 LARES I
Tel. 02/91 81 363 - 91 81 026

Production line :
Rigid printed circuit boards, one or two sided, with and without plated through holes. Flexible P.C.B., one or two sided with and without P.T.H. Rigid multilayers P.C.B. Mixed rigid-flexible P.C.B. Surface treatment: nickel-gold, tin-lead, tin-lead reflowed, bright tin, solder mask, component printing.
Luigi Cozzi, Commercial Manager
Arcangelo Barbieri, Export Sales Manager

Exhibited products :
Printed circuits.

LUNGARI Giuseppe

Via dell'Industria, 54
41100 - MODENA
Tlx. 512 087 P.P. MO I
(Att. ne Sig. Ogliari C.N.A.)
Tel. 059/36 00 50

Production line :
Prismatical and tangential grinding. Overhauls. Transformations. Mechanical and machine-tools manufacture.
Giuseppe Lungari, Sales Manager

Exhibited products :
Enlarged slides illuminated panels.

MIZAR S.r.l.

Via Monti, 48
10131 - TORINO
Tel. 011/65 08 507

Production line :
Big system automation software (E.D.: urban traffic automation).
Adriana Galliano, General Manager

Exhibited products :
Enlarged slides panels.

M.P.G. S.r.l.

Meccanica Precisione Giaveno
Str. Sabbioni, 15
10094 - GIAVENO (TO)
Tlx. 221 109 APITO I RIF. 503
Tel. 011/937 61 93 - 937 71 67

Production line :
High precision mechanical elements, oleodynamics, pneumatics.
Rinaldo Paviolo, General Manager

Exhibited products :
Mechanical elements of small dimension.

NORDEL S.r.l.

Frazione Losa
10070 - PESSINETTO
Tlx. 214 439
Tel. 0123/54 201 - 54 419

Production line :
Printed circuits
Lorenzo Clerico, General Manager

Exhibited products :
Printed circuits.

NOVACAVI S.p.A.

Via Martiri di Cefalonia, 1
20068 - PESCHIERA BORROMEO (MI)
Tlx. 322 333 NOCAVI I
Tel. 02/54 71 053 - 54 71 088

Production line :
Cables for special purposes
Ferruccio Ramplond, General Manager

Exhibited products :
Computer cables, radio-frequency cables, security-alarm cables, high temperature cables, telephonic cable, other cables.

NOVATEC

Tecnologia del vuoto
Via Montegani, 21
20141 - MILANO
Tel. 02/84 93 542

Production line :
Project and construction of apparatus and special plants for high and ultra vacuum.
Gabriella Giussani, General Manager

Exhibited products :
X rays monochromator, Space simulator chamber, laboratory apparatus for material activation by proton bombardment, Laboratory apparatus for generator plasma, High vacuum furnaces, Leakproofing apparatus for electronic components, Insulating oil treatment plants, Vacuum pumping units, Vacuum firming plants, Impreganting plants.

NUOVA TERMICS S.n.c.

Via Decia, 49
26100 - CREMONA
Tlx. 312 819 CR EXP NT
Tel. 0372/227 53 - 411 072

Production line :
Special heating elements. Instruments and probes to measure temperature and humidity.
Claudio Arisi, Sales Manager

Exhibited products :
Heating elements.
High precision psychrometer device.

OFFICINE GALILEO S.p.A.

Via A. Einstein, 35

50013 - CAMPI BISENZIO (FI)

Tlx. 570 126 GALILE I

Tel. 055/89 501

Production line:

Mechanical vacuum pumps and accessories. Vacuum valves. Cryogenerator and cryopump. Vacuum gauge.

Marco Panizza, Sales Manager

Argeo Pasqui, Assistant Sales Manager

Exhibited products:

High vacuum rotary pump, double stage mod. D020. High vacuum rotary pump, double stage mod. B040. Ionization gauge mod. OG 611. Piezorestive gauge mod. OG 713. Cryopump mod. KI-160.

ING. C. OLIVETTI & C. S.p.A.

Via Jervis, 77

10015 - IVREA (TO)

Tlx. 210 030 OLIVRI I

Tel. 0125/525

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Electronic typewriter and word processor. Micro-computer and management system. Terminals and telecommunication systems. Portable typewriters, calculators and photocopying machines.

Exhibited products:

Personal computers, local area network, peripherals.

OLIVETTI-HERMES (SUISSE) SA

Steinstrasse 21

Postfach, 8036 ZURICH

Tlx. 813 228

Telegr. Olivettico Zurich

Tel. 01/46 39 550

Production line:

Portable typewriters, calculators and photocopying machines

OMICRON DUE S.n.c.

Vicolo Mungis, 13

10043 - ORBASSANO (TO)

Tlx. 220 286

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Production line:

Dies for sheet, plastics and rubber-Cold forming of parts.

Export sales organization by METALLIA. Realizzazioni metal-meccaniche Avanzate-Consortio tra Imprese.

C.so Orbassano, 249

10137 TORINO

Tel. 011/32 31 12

Tlx. 220 286

Roberto Seni, Ettore Gandini

Area Manager

Exhibited products:

Clamps, supports and parts.

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Viale Milano, 16

21100 - VARESE

Tlx. 380 378 PROVEX I

Tel. 0332/24 00 06

Production line:

Machine tools for metal working and accessories. Air treatment, fan propellers and similar equipment. Chemical, petrochemical plant installations and apparatuses. Electric and electronic components and devices. Motor speed gear reducers. Steel and aluminium alloys hot forged pieces and castings. Metal working workshop. Instrumentations.

Giovanni Castagnoli, General Manager

Exhibited products:

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 - Lifting equipments
 - Generating boilers
 - Refrigerating equipment
 - Sundry equipment
 - Petroleum
 - Industry tands etc. assembly work of petroleum plants - industrial dust exhaust equipment
 - Metal pipes, profiles, etc.
 - Metal castings, drop forgings
 - Flanges, valves, bolts for petroleum plants and other industry
 - Bolts and small pressed, turned, metalwares
 - Fire trucks, public-utility motor vehicles
 - Plastic materials: pipes, extruded articles Containers and molded articles
 - Films, sheets bags, etc.
-

SILENA S.p.A.

Via Negrolì, 10/a
20133 - MILANO
Tlx. 322 523
Tel. 02/71 38 71

Production line:
Electronic instrumentation for acquisition and analysis of nuclear data.
Carlo Bonsignori, Commercial Manager
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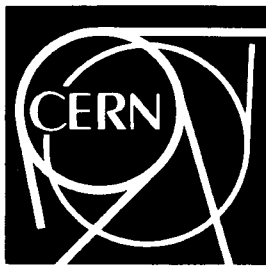
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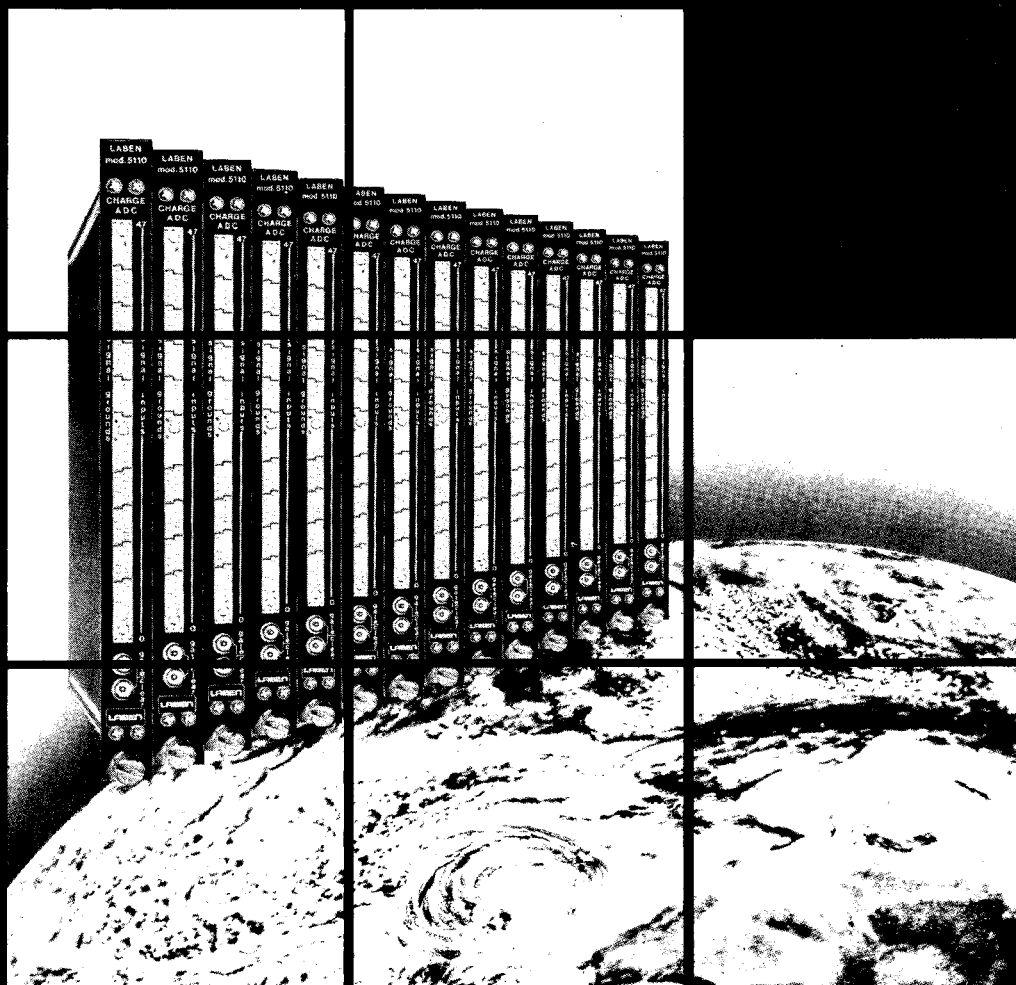
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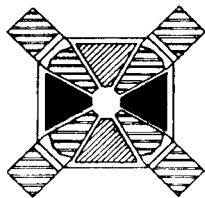


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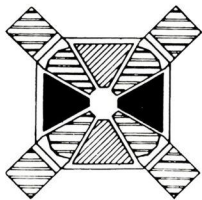
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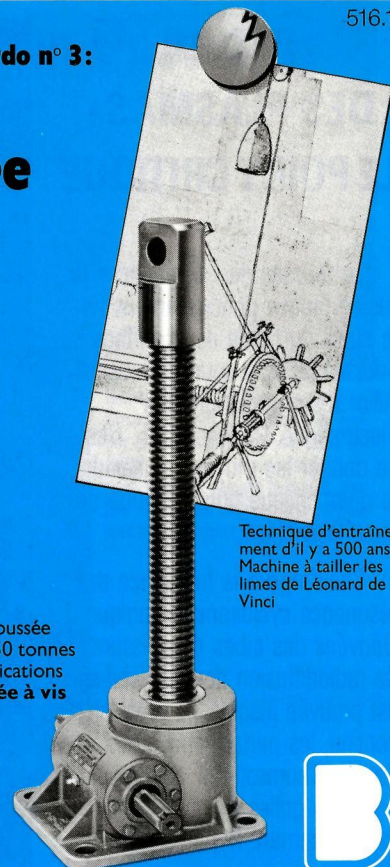
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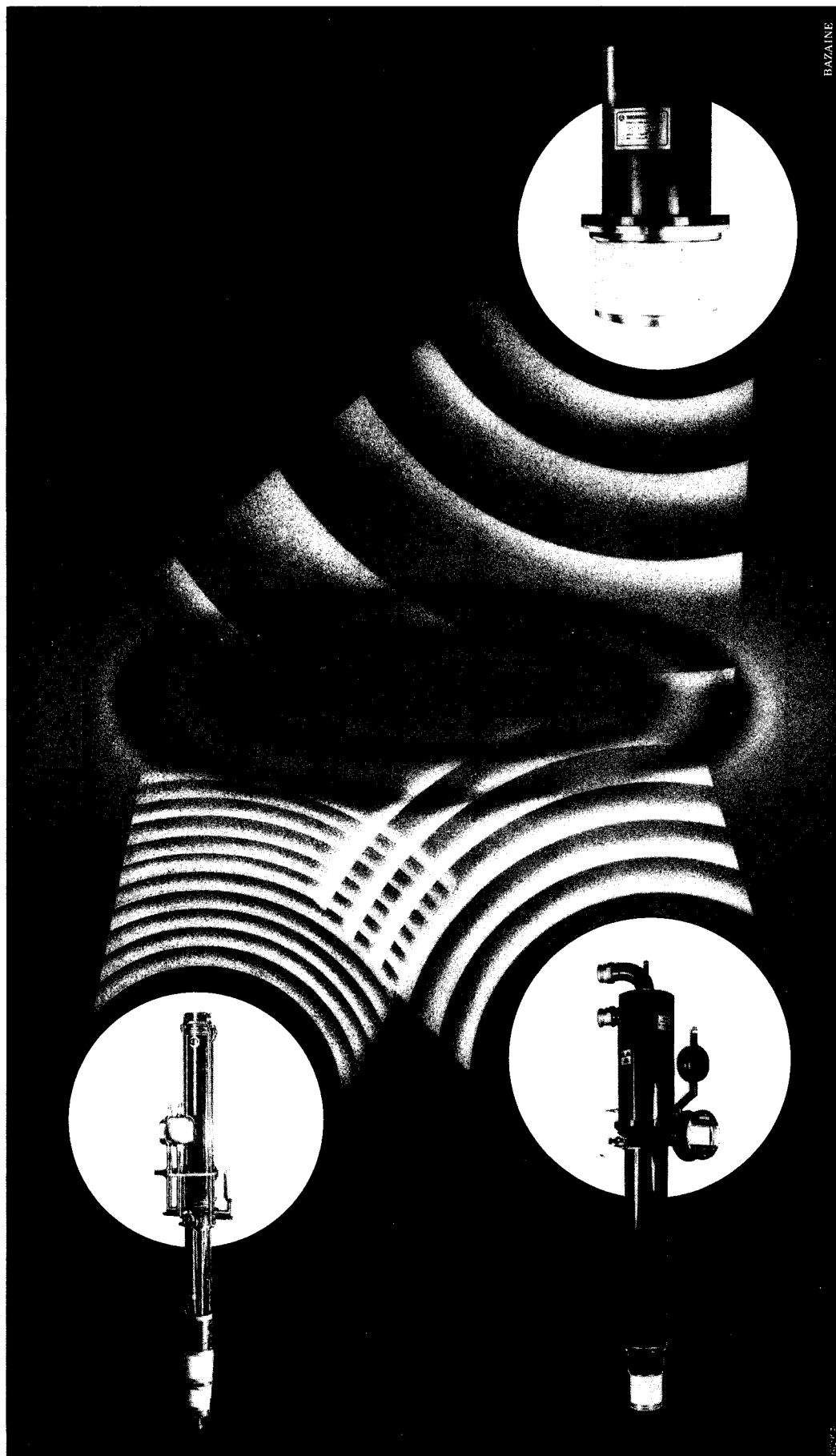
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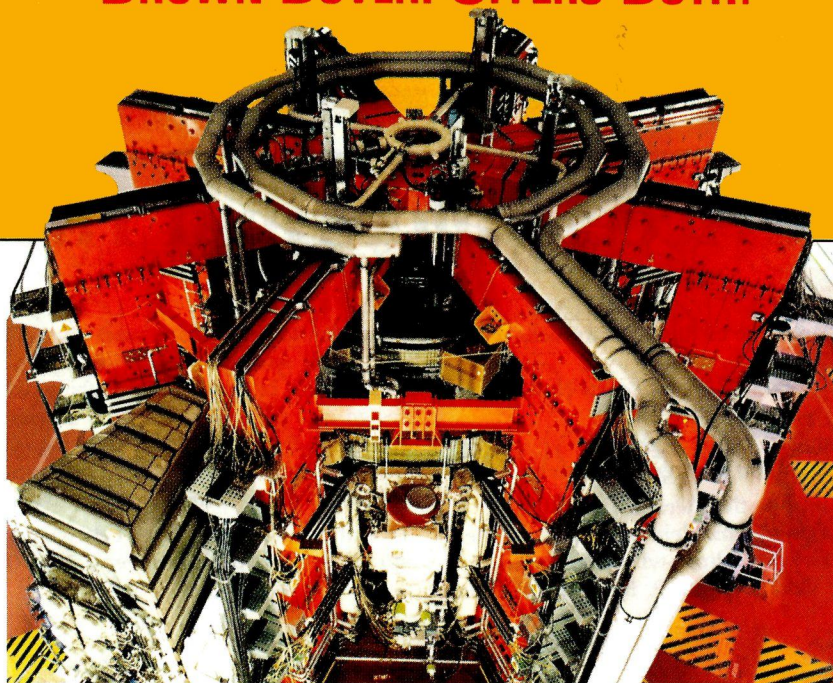
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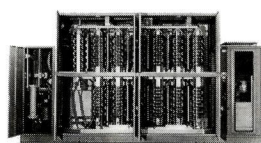
General view of JET, Joint European Torus at Culham, Oxfordshire, GB. For this test tokamak for plasma research BBC has delivered all toroidal field coils, the inner poloidal field coils, the four larger outer poloidal field coils as well as the magnet core. (Photo JET).

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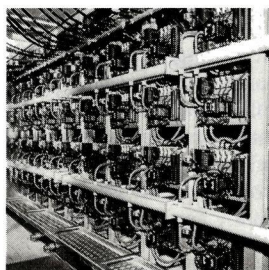
CERN, European Organization for Nuclear Research, Geneva: dipole and quadrupole magnets, spectrometer magnet 3 MW, superconductor and coils for Omega spark chamber magnet. DESY, Deutsches Elektronen-Synchrotron, Hamburg: bending and quadrupole magnets, exciting coils for PETRA bending magnets, superconductor for HERA dipole magnets. Istituto Nazionale di Fisica Nucleare, Milano: 3 RF generators, 15 to 50 MHz, 90 kW. IREQ Varennes, Canada: 4 power supplies for Tokamak, 1 static bi-directional plasma start-up switch (20 kA/15 kW). Jet Joint Undertaking, Culham GB: poloidal and toroidal field coils, magnet core for Joint European Torus, switching and regulating tetrodes CQK 200-4. KFA Kernforschungsanlage Jülich, FRG: 2 neutral beam injection power supplies 55 kV, 100 A, switching and regulating tetrode CQK 400-1. Lawrence Livermore National Laboratory, Livermore USA: 2 RF generators, 6 to 20 MHz, 1 MW, switching and regulating tetrodes CQK 200-4. Max-Planck-Institut für Plasmaphysik, Garching/Munich: 2 RF generators, 30 to 115 MHz, 1,5 MW (tests up to 2 MW), poloidal and toroidal field coils for ASDEX and W VII, switching and regulating tetrodes, RF study for ASDEX upgrade. Oak Ridge National Laboratory, Oak Ridge, Tenn., USA: Superconducting toroidal field coil for Large Coil Task. Princeton Plasma Physics Laboratory, Princeton, NJ, USA: Poloidal field coils for TFTR Tokamak. SIN, Schweiz. Institut für Nuklearforschung, Villigen: 4 generator power supplies 16,5 kV, 80 A. Main magnets of isochron cyclotron (2000 tons), bending, quadrupole and experimental magnets. Superconducting coils for muon channel and bio-medical applicator PIOTRON. Switching and regulating tetrodes for Euratom-ENEA Rome, Euratom-CEA Fontenay-aux-Roses F, Fusion Research Center of Japan Atomic Energy Research Institute. High power RF triodes and tetrodes for CRPP, Association Euratom Suisse, Ecole Polytechnique Fédérale, Lausanne CH.



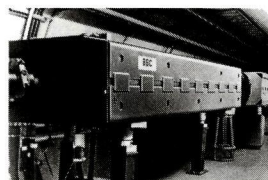
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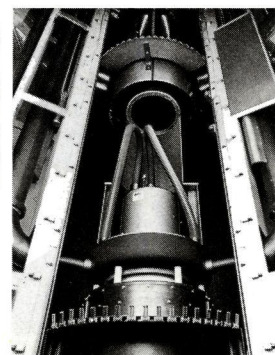
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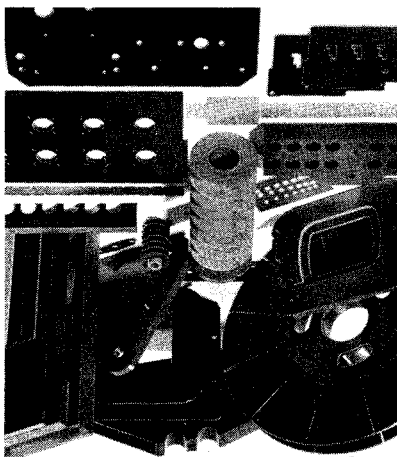
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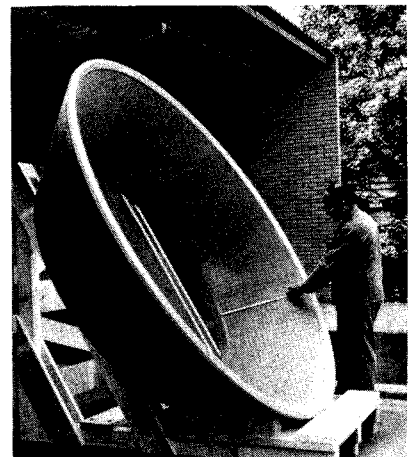
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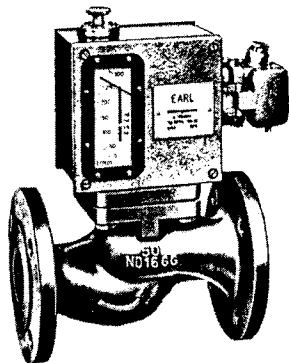
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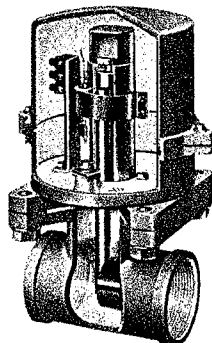
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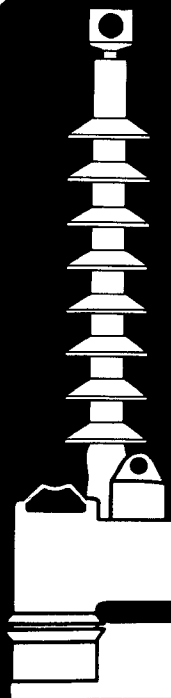
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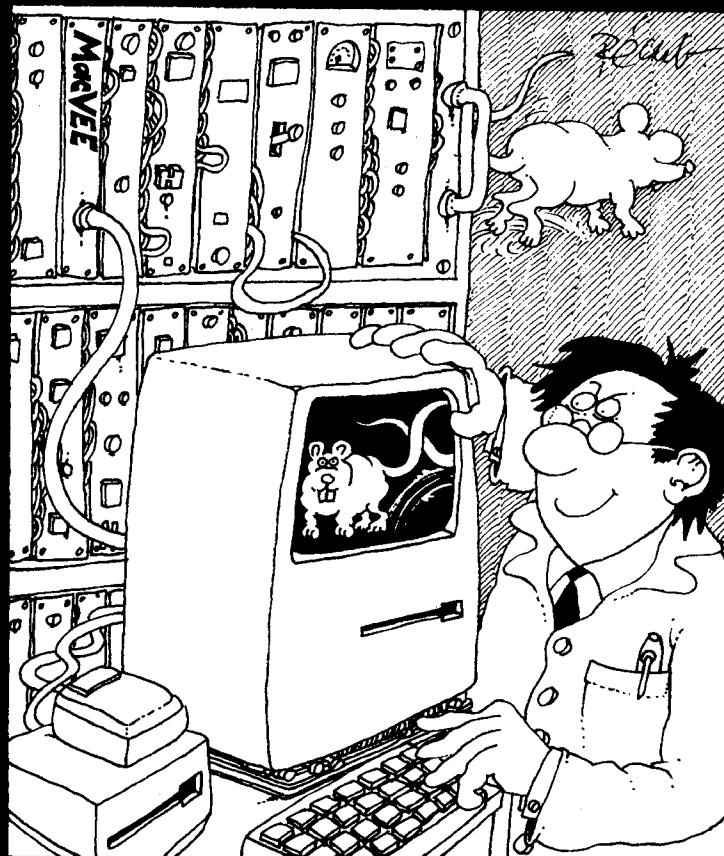
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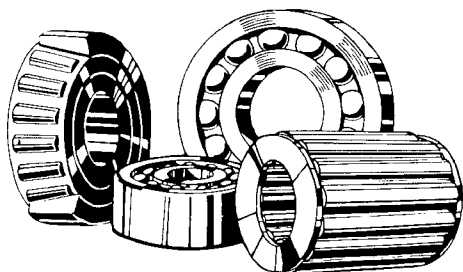
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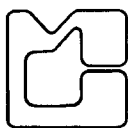
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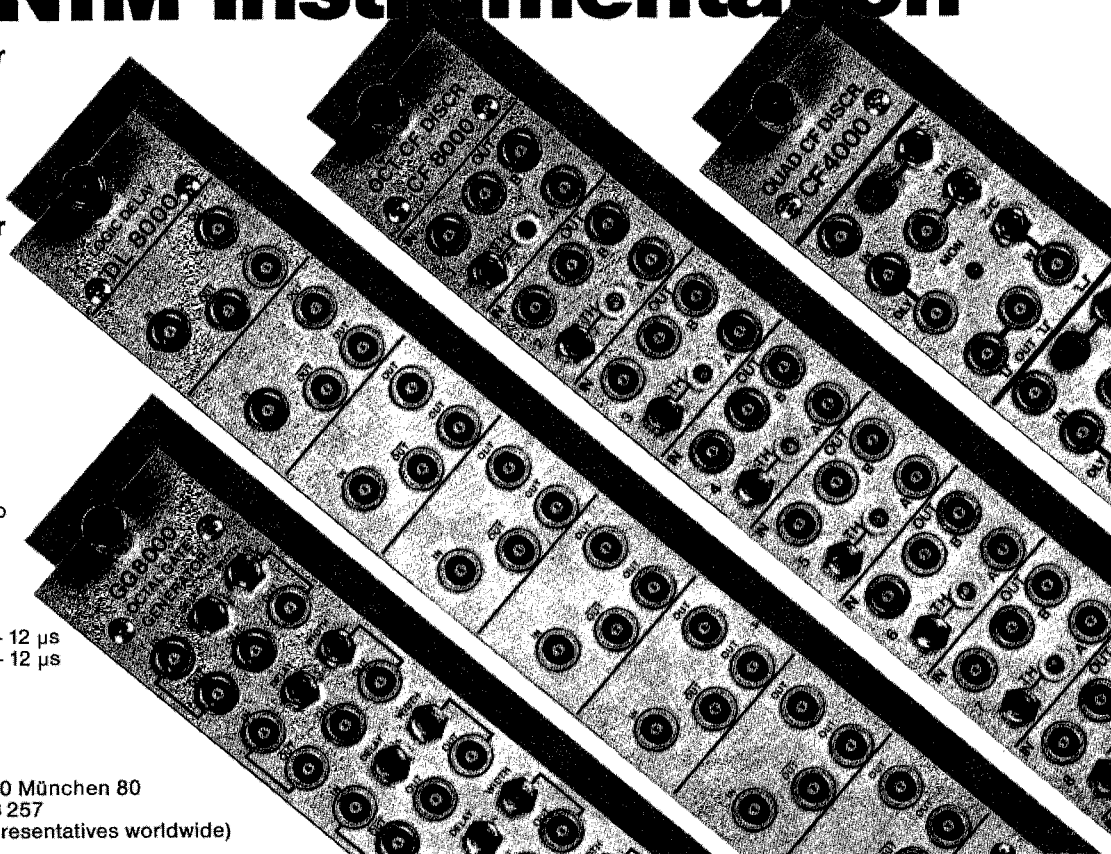
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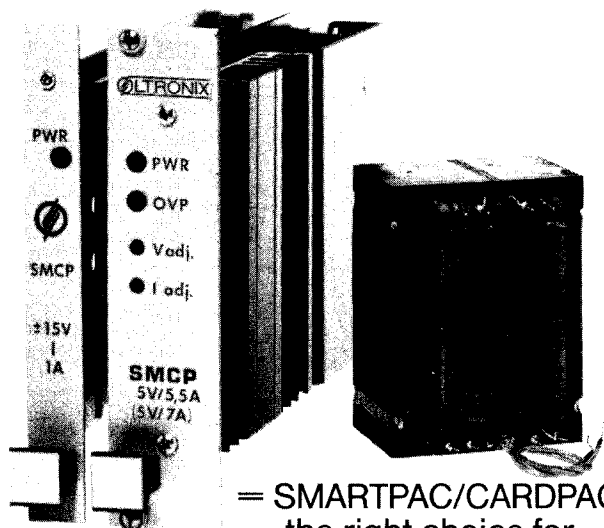
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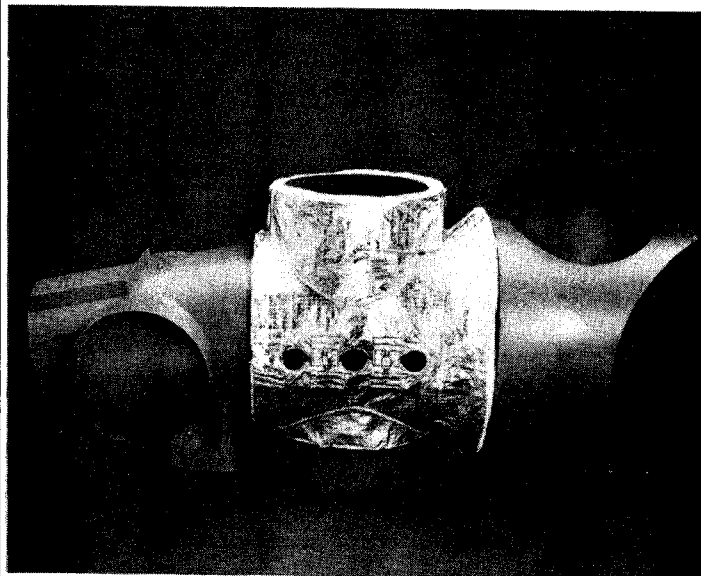
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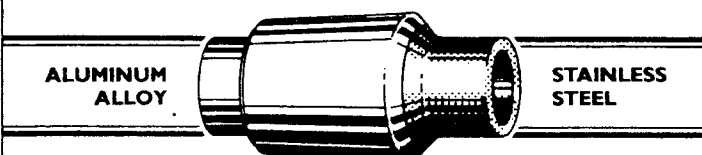


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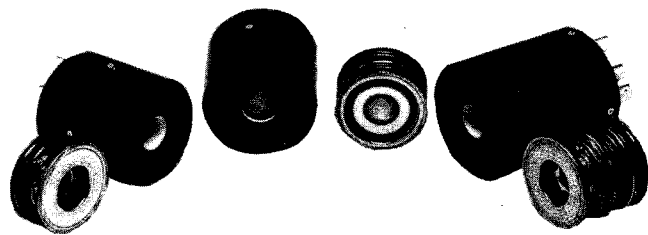
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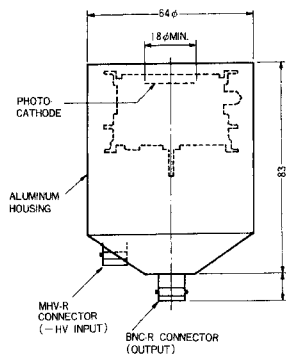
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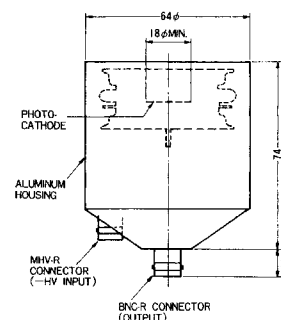
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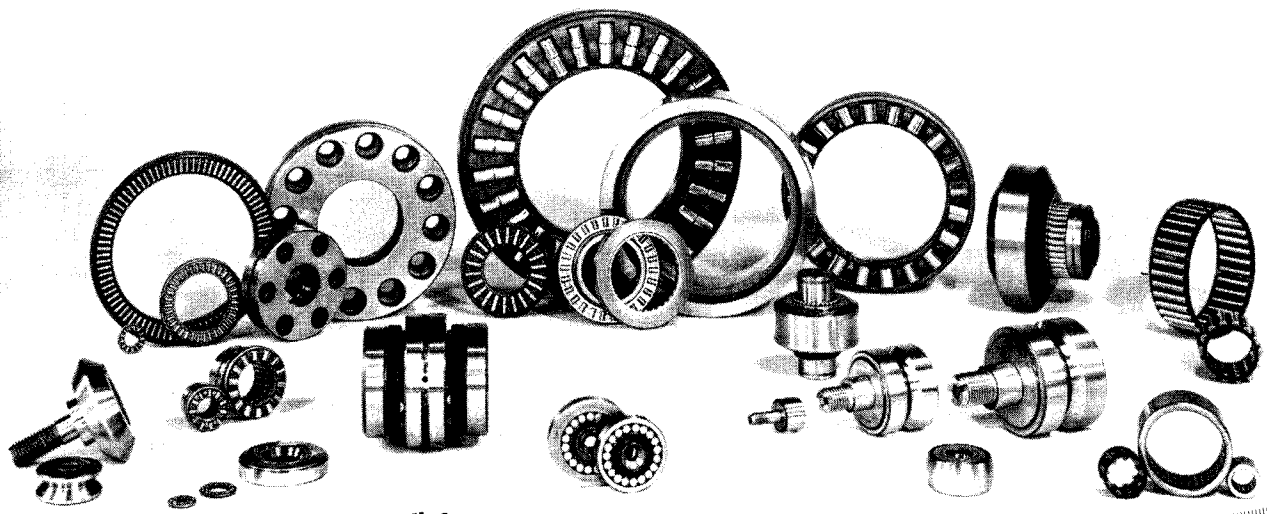
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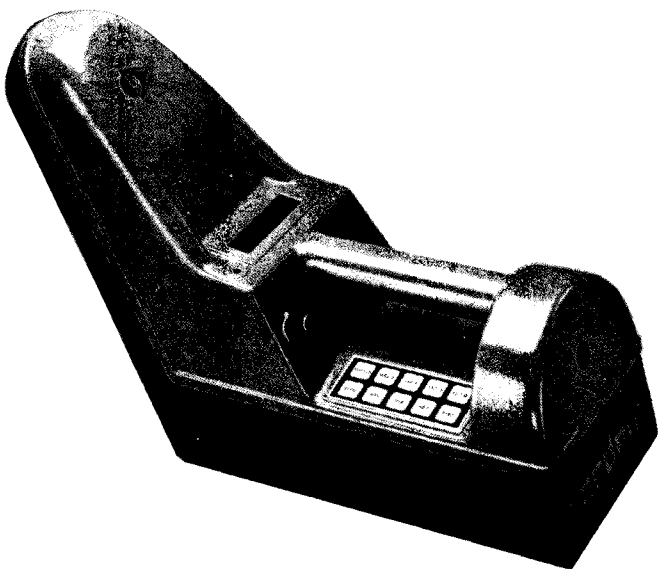
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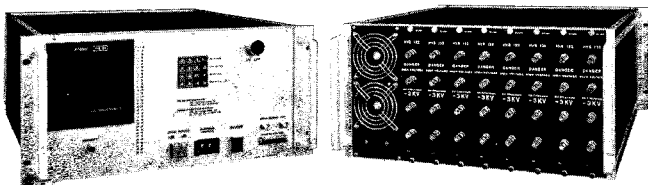
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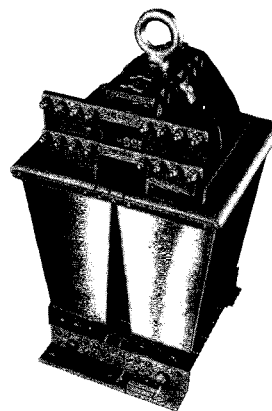
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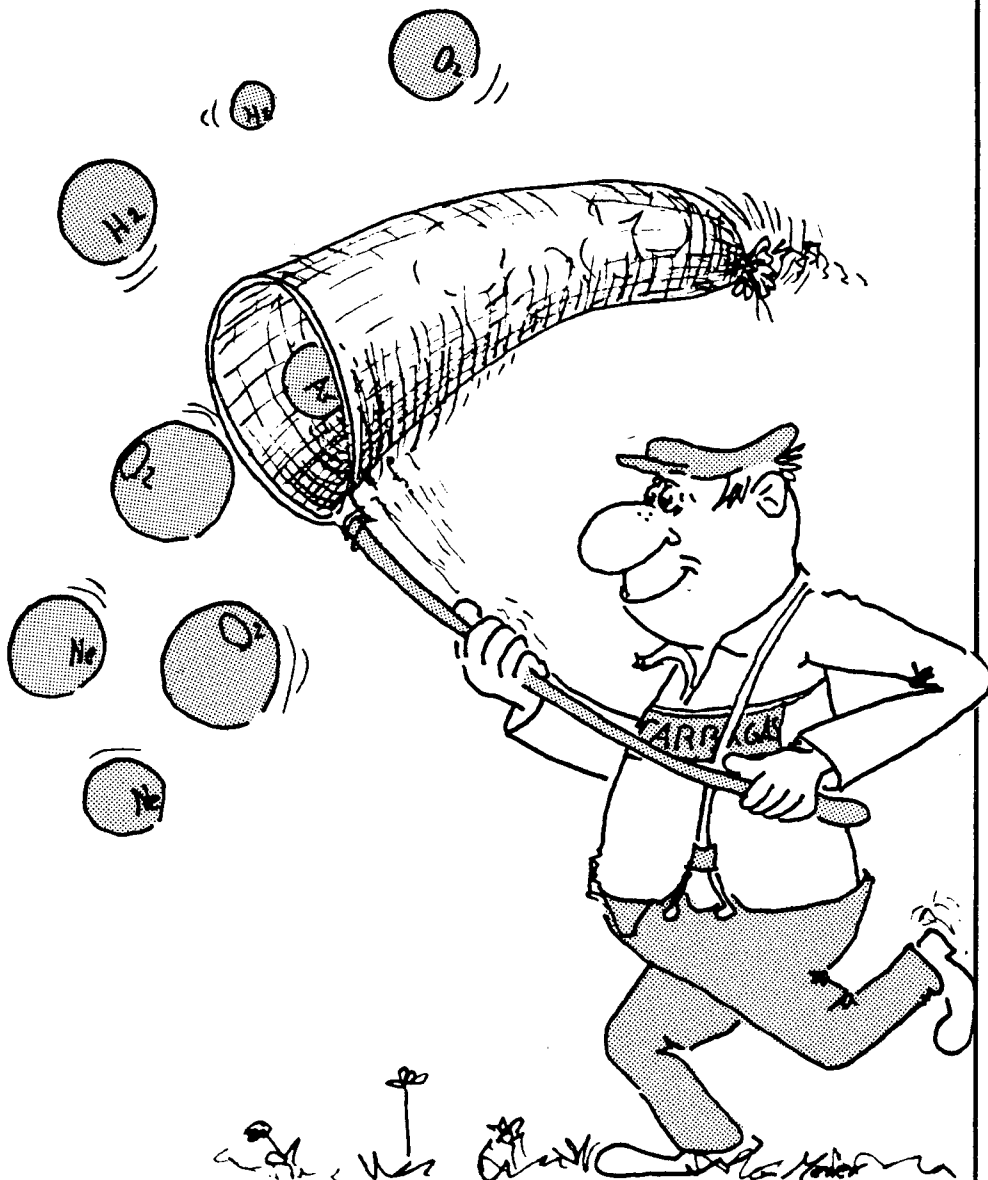
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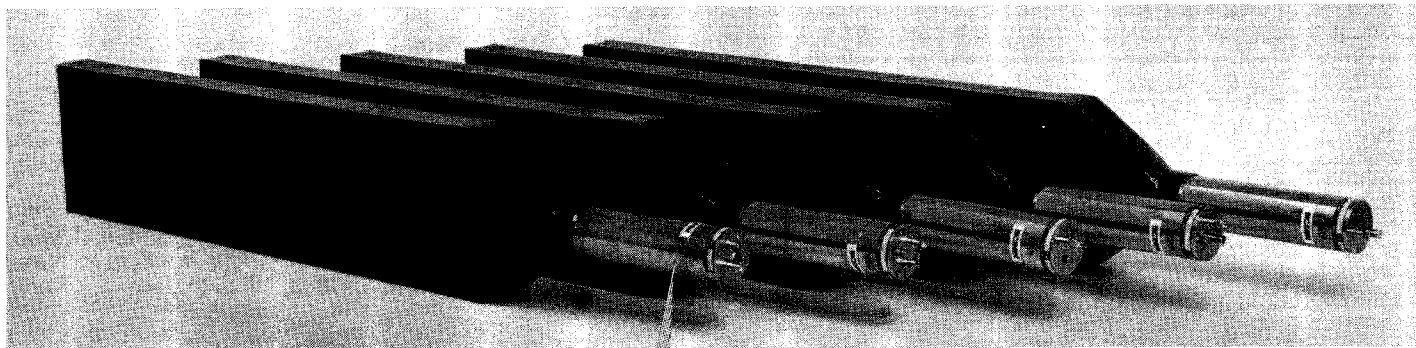
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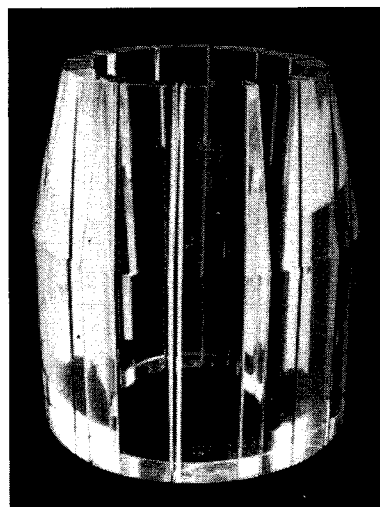


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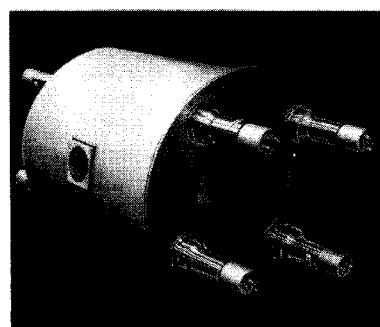
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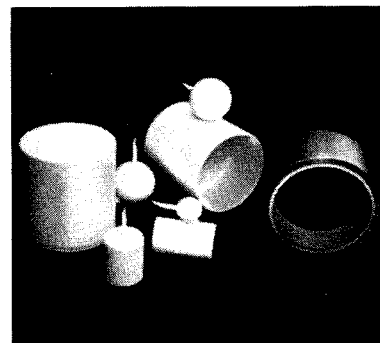
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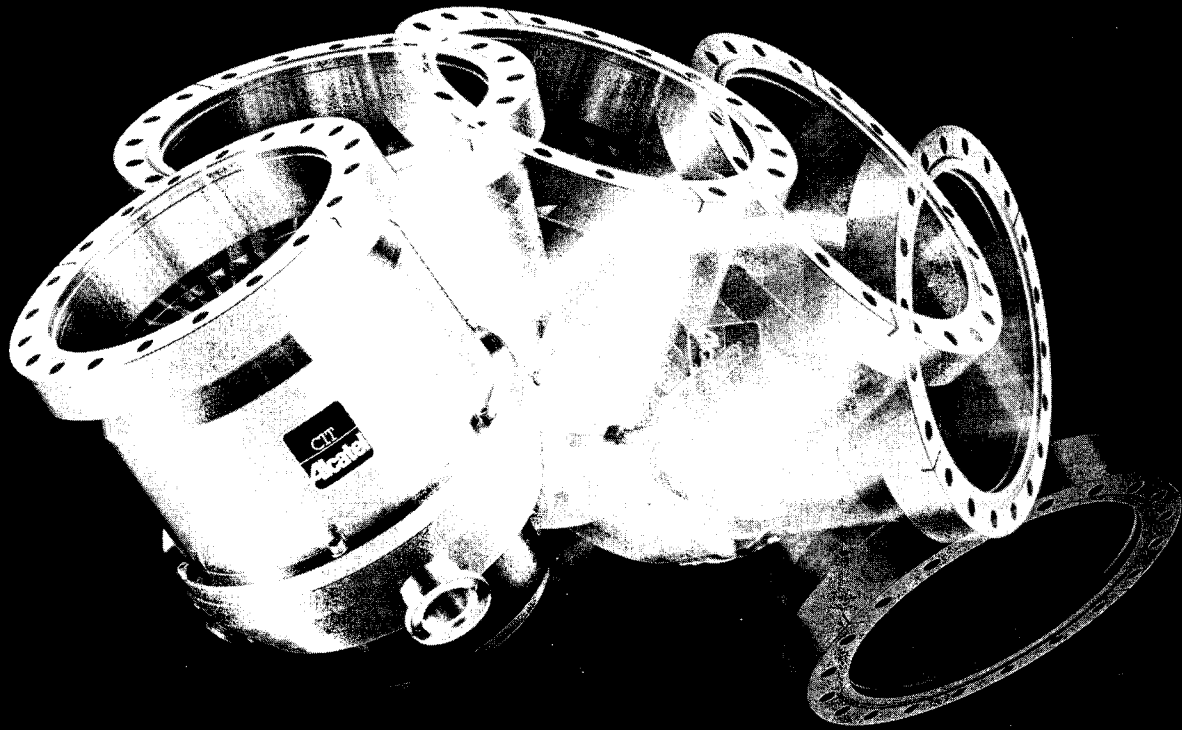
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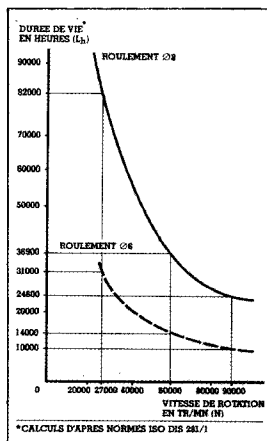
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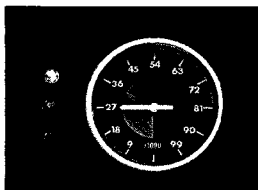


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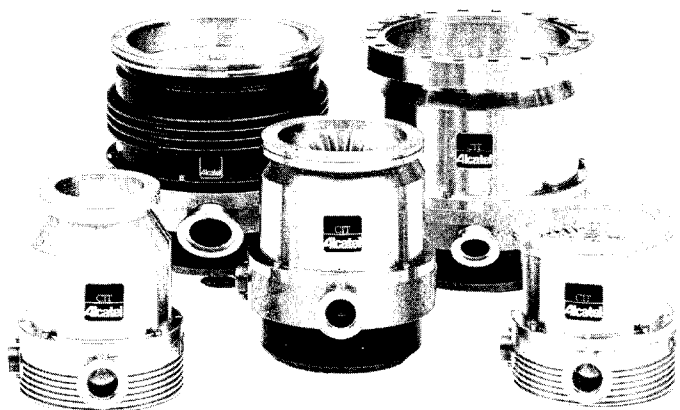
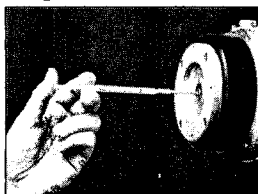
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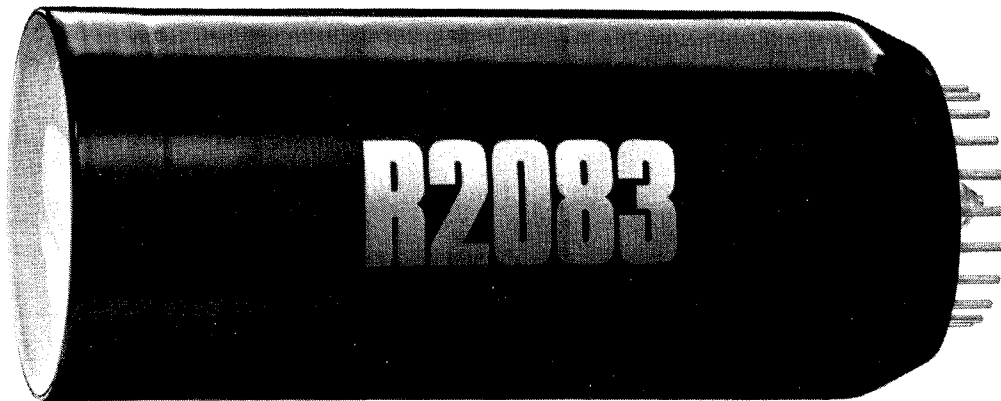
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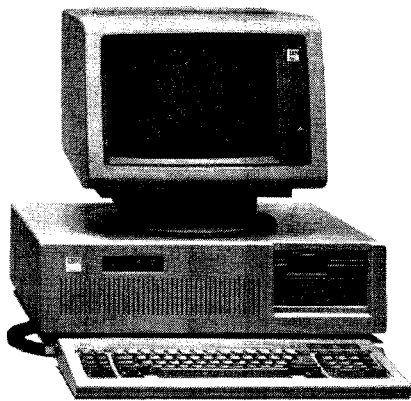
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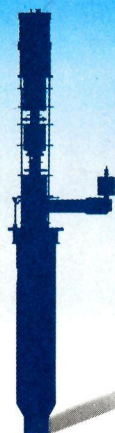
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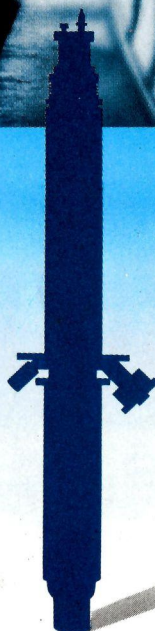
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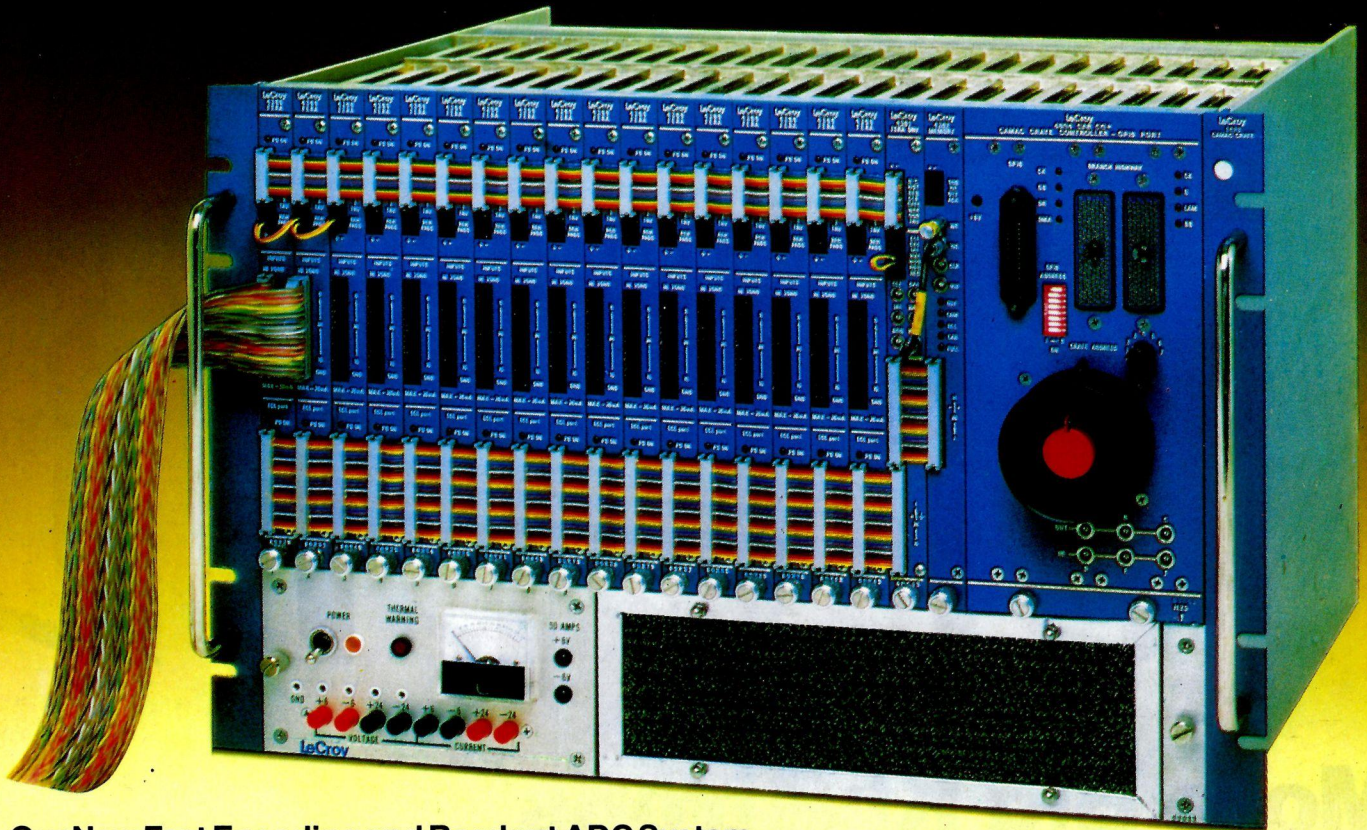
YK 1320 operating at 224 MHz and delivering 3 MW pulse power. Further

main electrical parameters are: pulse width 0,01 - 1 ms, duty cycle up to 12%, efficiency approx. 55%. Due to the relatively low frequency and the high output power the overall length of this klystron amounts to 5.5 metres. These tubes have been developed for a facility which consists of two incoherent scatter radar systems for the purpose of advancing our understanding of processes in the upper atmosphere. Significant results in high latitude ionospheric and atmospheric research have already been obtained.

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VALVO

Fast 16 Channel CAMAC ADC Faster Conversion Time Fastest Readout Speed



Our New Fast Encoding and Readout ADC System for High Rate Analog Data Acquisition Applications, Real Time Systems, Colliding Beam Diagnostics, and Energy Based Triggers in Particle Beam Experiments

Now, an ADC system with enough precision (8 to 11 bits) to achieve high signal to noise ratios and wide dynamic range, but fast enough for real-time decisions: An ADC System that can be used for test and proto-type work and then expand to a full scale data acquisition systems.

LeCroy introduces the System 4300 Fast Encoding and Readout ADC (FERA), our new high speed, low cost, high density, analog-to-digital conversion system. Flexible modular design permits growth from single 16-channel ADC modules in existing CAMAC systems, up to multi-crate buffered installations with programmable real-time data processing.

The Model 4300 16 Channel FERA combines fast parallel conversion with an optimized readout scheme to achieve an extremely high data throughput rate. For example, if the 272 channels shown above contain 20% valid data, they can be digitized into 11 bits, have the pedestals subtracted, and be read out into the memory every 16 microseconds.

The Model 4302 Memory holds 16K of 16-bit words and can be loaded at 100nsec/word. An optional FERA Driver, the Model 4301, distributes Gate, Clear and Test signals and includes a 12-bit DAC for calibration and testing. The crate may be controlled by a Series 4800 CAB, Programmable CAMAC Processor which can perform complex algebraic operations such as cluster finding on the data as well as further data compression.

For more information on FERA, contact your local sales representative.

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