



Bonfiglioli

Tecnoingranaggi

Highest Performance Precision Planetary Gearboxes



Bonfiglioli

power, control and green solutions

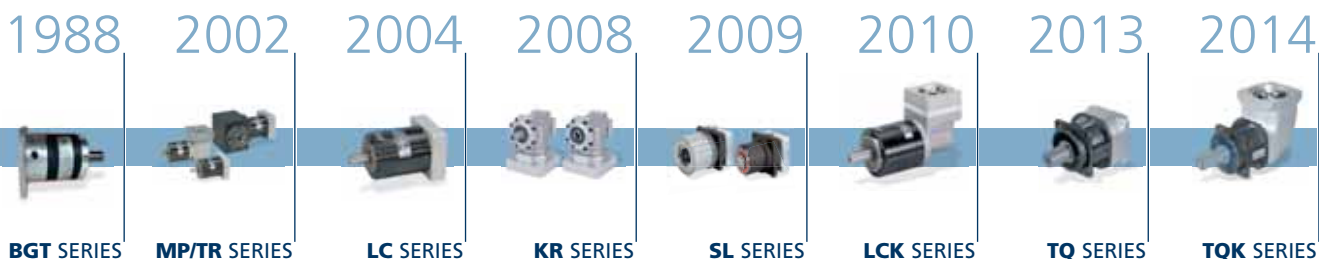
WE KEEP THE WORLD IN MOTION

Committed to become your world class partner, Bonfiglioli is a leading name in power transmission since 1956.

Our best-in-class solutions are backed by nearly 60 years of engineering expertise as well as an in-depth understanding of the industries we serve.



High innovative mechatronic tailored solutions from unique supplier to meet any kind of specific needs.



MECHATRONICS - THE CHALLENGE TO BUILD YOUR SUCCESS

Faster, better and cheaper - this is the new challenge for machine designers!

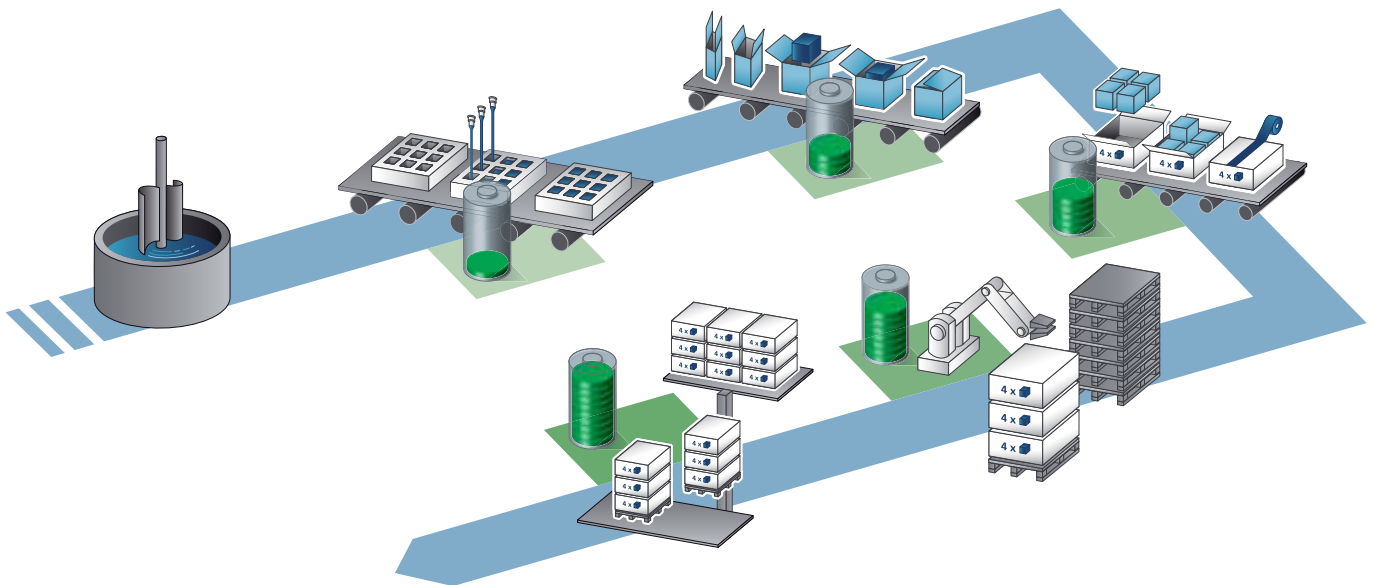
Increasing demands on the productivity of complex system machines, more flexible machines which run at highest efficiency level are requiring now new intelligent technical solutions that enhance growth tomorrow. Bonfiglioli has implemented a precise and detailed strategy to precisely achieve this objective!

Committed to be your world class partner of smart mechatronic solutions and servosystems, the Industrial Business Unit has established two divisions to serve its reference markets with specialist competence and care:

- Power Transmission Solutions division (PTS)
- Mechatronic Drives & Solutions division (MDS)

Our new Mechatronic Drives & Solutions (MDS) division is born with the mission to improve profitability by acting as a riskless partner and a provider of energy-efficient solutions over the total life cycle in the field of industrial automation.

- System integration
- Expertise
- Energy saving



Performance, reliability, low cost, robustness, efficiency and sustainability are absolutely essential.

TRAINING

MECHANICAL &
MECHATRONIC STUDIES

PRODUCT
CUSTOMIZATION

REALIZATION OF PROTOTYPES,
TESTS AND ANALYSIS REPORTS

OUR EXPERTISE FROM START TO FINISH!

Two Centers of Excellence are driving MDS' innovation:

- Bonfiglioli Vectron in Germany, with strong technical, R&D and manufacturing capabilities as regards electronic components, and most notably inverters and servo drives;
- BMR (Bonfiglioli Mechatronic Research), situated in Rovereto (Trento, Italy) who offers a strong R&D capability able to provide innovative new solution for your specific needs. BMR is also a production facility where mechatronic new solutions become reality.

Key to our MDS' success is strongest technical support from our specialists DSC (Drive Service Center team). They accompany you throughout the entire installation's life cycle, from initial concept idea and design until commissioning.

Bonfiglioli

is close to your needs internationally through its branches which can directly follow the customers using streamlined international teams.



ON-SITE
ACTIVITIES

START-UP
ASSISTANCE

COMMISSIONING

MAINTENANCE

CUSTOMER
SERVICE

WHY CHOOSING TQ & TQK TOP CLASS INNOVATION PRODUCT?



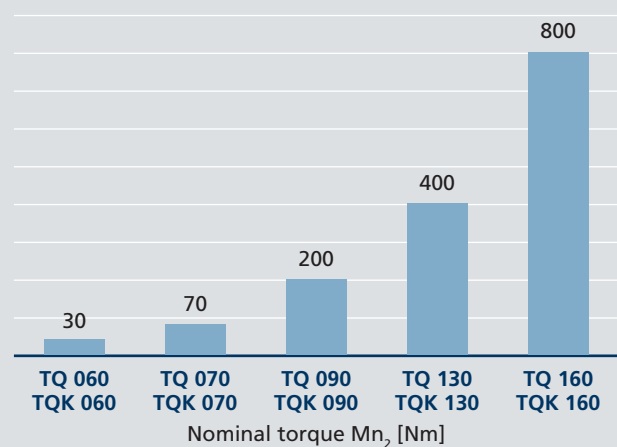
HIGHEST
PRECISION
PLANETARY
GEARBOXES



TQ (in-line) & TQK (right angle) features a higher positioning.
Whether torque, robustness, or precision - this attractive product range scores in every category.

Product Line Up:

- Outstanding Torque Density
- Outstanding Acceleration and Nominal Torques
- Outstanding Radial and Axial loading capacities
- Designed for Cyclic and Continuous Duty
- Markedly higher Torsional Stiffness
- Extremely Geometrical Backlash less than 2 arcmin (TQ) & 4 arcmin (TQK)
- Quiet running
- Universal design allow any mounting orientation
- IP65



TQ PRECISION PLANETARY GEARBOX

HIGH RATING OUTPUT BEARINGS

- Higher Radial & Axial Force

UNIVERSAL DESIGN

- Markedly higher torsional stiffness
- Compactness

MONOBLOCK PLANET CARRIER

- Higher radial force
- Markedly higher torsional stiffness

SOLID UNCAGED NEEDLE ROLLER

- Increase rating
- Markedly higher torsional stiffness

HIGHER INPUT SPEED

- Match with highest speed servomotors

IP65 degree protection

TRIPLE COLLET COLLAR CLAMPING SYSTEM

- Backlash free power transmission
- No slippage
- Low inertia

NITRURISING AND HONING

- Higher performance
- Outstanding torque density
- Extremely reduced backlash
- Quiet running

- Universal design for any mounting orientation
- Life lubricated
- Designed for:
 - S1
 - Cyclic operation

TQK PRECISION PLANETARY GEARBOX



HIGHEST
PRECISION
PLANETARY
GEARBOXES



MONOBLOCK PLANET CARRIER WITH EXTENDED BEARING DESIGN

- Higher radial force
- Markedly higher torsional stiffness



SOLID UNCAGED NEEDLE ROLLER

- Increase rating
- Markedly higher torsional stiffness

HIGHER INPUT SPEED

- Match with highest servomotors

UNIVERSAL DESIGN

- Markedly higher torsional stiffness
- Compactness

NITRURISING AND HONING

- Higher performance
- Outstanding torque density
- Extremely reduced backlash
- Quiet running

IP 65 Protection

90° via helical bevel gear

TRIPLE COLLET COLLAR CLAMPING SYSTEM

- Backlash free power transmission
- No slippage
- Low inertia

HIGH RATING OUTPUT BEARINGS




- Higher Axial and Radial Force

- Universal design for any mounting orientation
- Life lubricated
- Designed for:
 - S1
 - Cyclic operation

COMPLETE OFFER AND HIGHER FLEXIBILITY FROM BONFIGLIOLI

Bonfiglioli Riduttori, worldwide leader in Power Transmission and Mechatronics Solutions, offers a complete range for precision planetary gearboxes.

The current product portfolio adapt precisely to your specific needs in three performance class:

HIGH PERFORMANCE	PRECISION	FLEXIBILITY
<p>TQ (in-line) TQK (right angle)</p>	<p>TR & MP (in-line / right-angle configurations)</p>	<p>LC (in-line) LCK (right angle) SL (in-line) for dynamic belt applications KR (right angle)</p>
		

Product Line-Up:

- Highest precision & Performance
- High speed applications
- Highest axial & radial load capacities
- Modular design for your needs
- Quiet operation

Product Line-Up:

- Many configurations available
- High Performance
- High precision
- Modular design for your needs

Product Line-Up:

- Flexible
- Economic Precision, Dynamics & Compactness

A RELIABLE PARTNER FOR YOUR BUSINESS



HIGHEST
PRECISION
PLANETARY
GEARBOXES

Bonfiglioli Riduttori brings decades of experience supporting customers across a broad spectrum of industry sectors.

TQ (in-line)
TQK (right angle)
High precision planetary gearbox. Your best choice for a variety of applications.



Machine tools and manufacturing systems

Maximum precision due to extremely low backlash and higher torsional stiffness combined with exceptional rating of this product.



Working center for metal, wood, marble, stone

Markedly torsional stiffness and exceptional rating of TQ & TQK guarantees significant performance of your application.



Printing and paper machines

Extremely low backlash and exceptional rating make this product the right partner for high-quality printing processes and other continuous applications.



Glass working center

Smoother gearing (lower vibration) make this exceptional product suitable for your application.



Robotics, automation and material handling systems

Higher dynamic due to markedly torsional stiffness and extremely reduced backlash.

BONFIGLIOLI SERVO PACKAGE FOR YOUR MECHATRONIC APPLICATIONS

As a competent technology partner, our engineering specialists are building, together with you, tailored and forward looking integrated solutions to meet the individual needs and to deliver energy-efficient mechatronic for your application.

Our products are intended to generate value for our customers. We are committed to designing, manufacturing and supplying effective products and services that set a benchmark in the industry.



Complete automation servo package (Gearbox - Motor - Inverter - HMI) from unique supplier.

BETTER PERFORMING, EFFICIENT & COST EFFECTIVE DESIGNS



Bonfiglioli is your partner assisting you in sizing, fine tuned optimization and selection of a drive train.

Our attention is focused in designing and manufacturing products for your motion requirements but we also have implemented servo tools that make your design process easier.

We are able to optimize the servopackage avoiding over sizing that increases the initial system cost as well as the ongoing operating cost of a servo system.

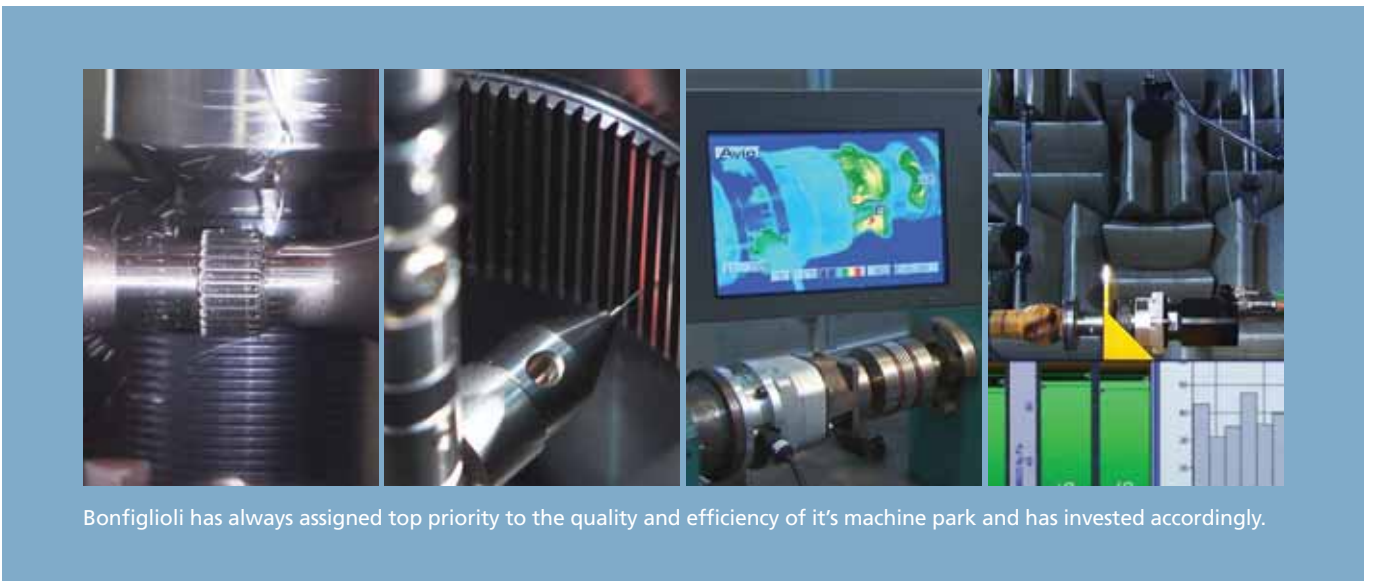
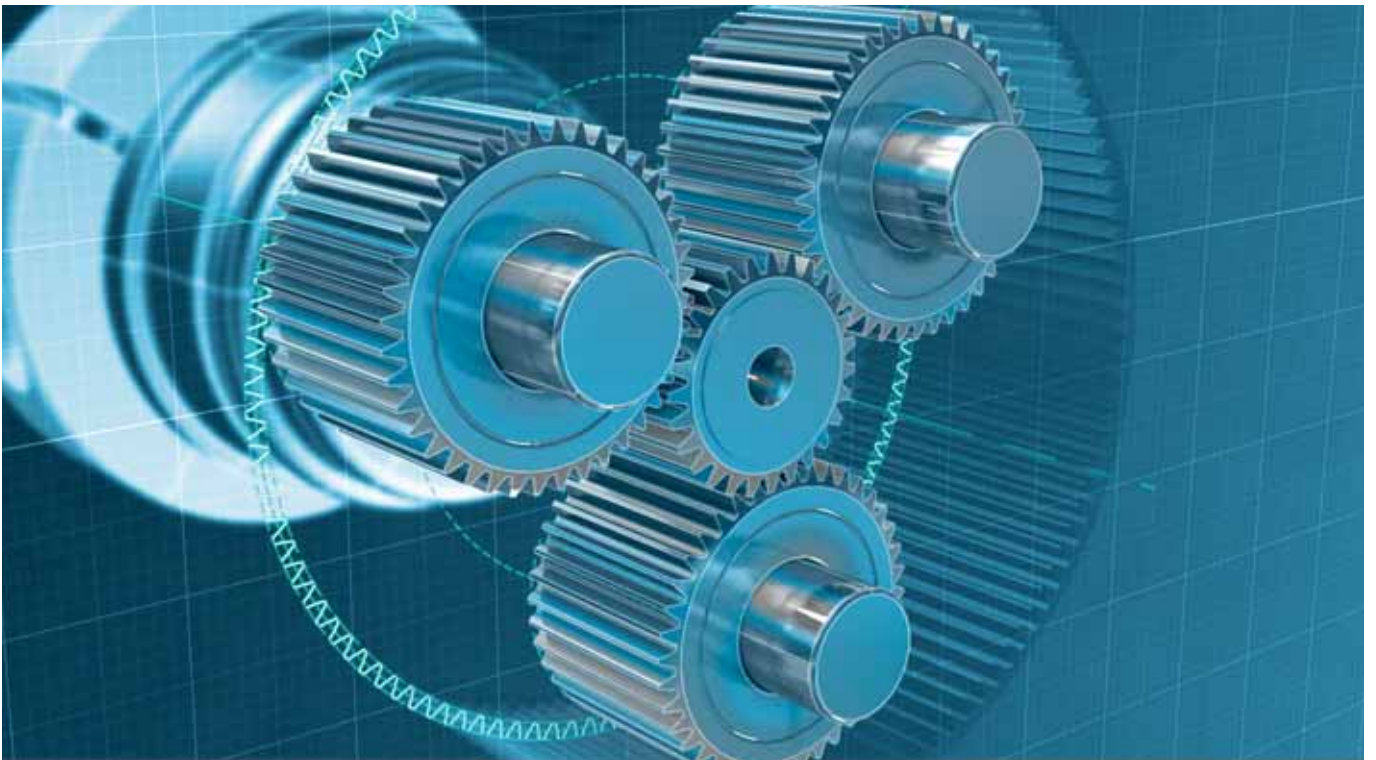
Optimized tailored solution and unique supplier.

Req'd	Calculated
Sequence	6,961 s
Velocity	1.636 $\frac{m}{s}$
Acceleration	4.002 $\frac{m}{s^2}$
Deceleration	4.002 $\frac{m}{s^2}$
Load + Payload	0,0392 kg-m ²
Inertia	-12 Nm
Drive pulley output torque	14,74 Nm
Belt tensile force	421 N
Input torque	15,51 Nm
Rigidity at input	3,567e+13 Nm/rad

QUALITY & TECHNOLOGY

Product reliability is achieved through a production process geared towards excellence

Advanced machinery has always been central to Bonfiglioli's production system.



Bonfiglioli has always assigned top priority to the quality and efficiency of its machine park and has invested accordingly.

ONE-STOP SHOP OUR SERVICES



All Bonfiglioli solutions enjoy a prompt and reliable technical assistance worldwide.

Specialist personnel with an in-depth knowledge of the market in which they work provide pre-sales, installation, after-sales and user documentation service.

In details, we offer a full range of services tailored to suit our customers wishes and needs.

- Optimal delivery times for your products & very fast deliveries for unplanned requests with urgent procedure.
- Immediate professional technical support able to define customized solutions.
- Fast response time & delivery for your units to replace in case of time-critical situations.

BEFORE
INSTALLATION

AFTER
INSTALLATION



Mechanical & Mechatronic studies



Product customization



Realization of prototypes, tests & analysis reports



Start-up assistance



Maintenance



Customer service

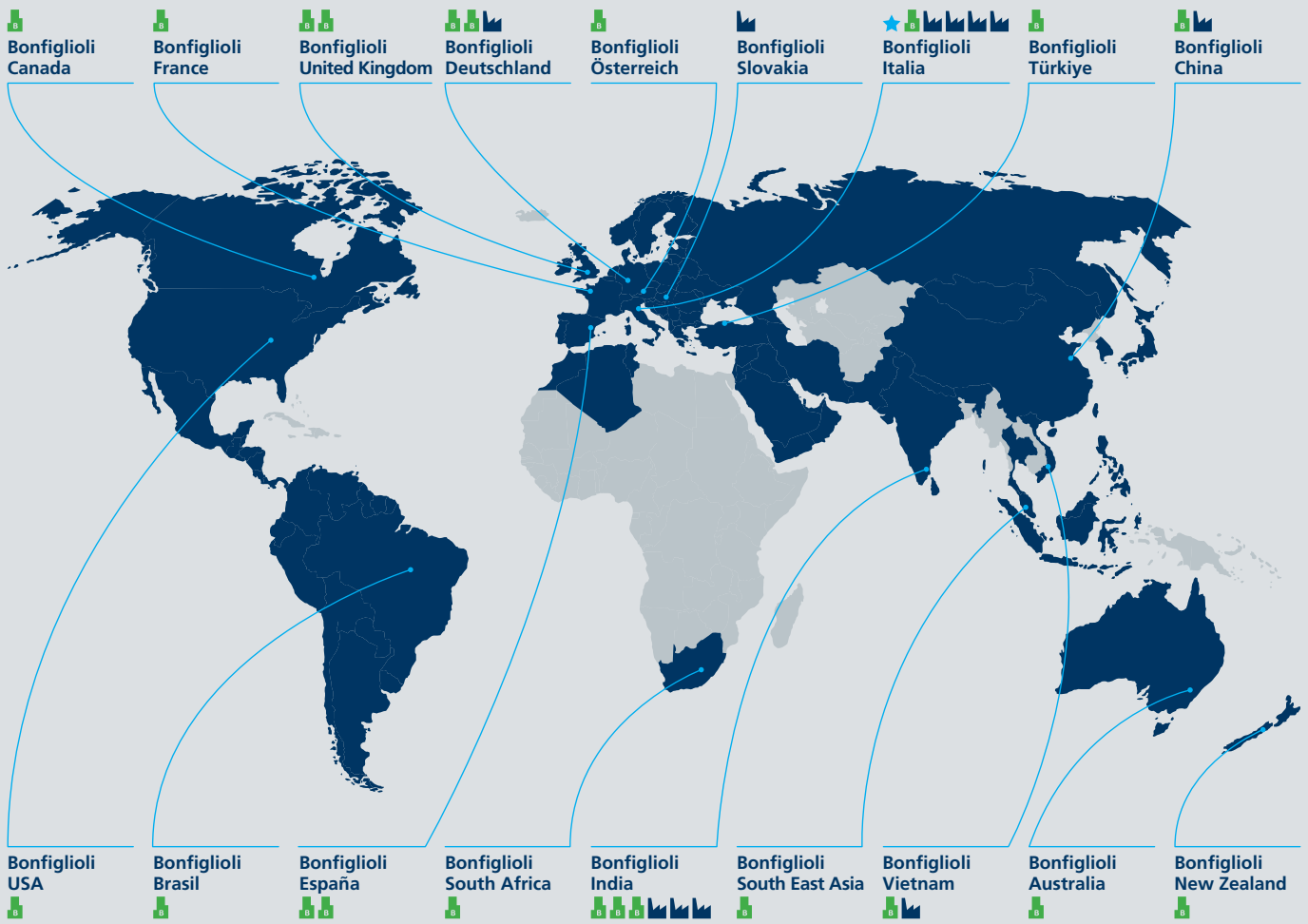
TRAINING

BONFIGLIOLI NETWORK: GLOBALLY FOR YOU

The Bonfiglioli Group's global and widespread presence means that we are close to where our customers go; no matter where you need us, we successfully serve both new and traditional markets, and ensuring efficiency and efficacy in the delivery of solutions and the development of applications.

Bonfiglioli is a market protagonist thanks to an extensive and widespread presence that spans 80 countries on 5 continents which ensure accurate commercial and logistic coverage of a vast geographic area and allow us to work closely with customers throughout the pre-sales and after-sales stages.

-  Headquarters
-  Subsidiary
-  Production facility



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Bonfiglioli has been designing and developing innovative and reliable power transmission and control solutions for industry, mobile machinery and renewable energy applications since 1956.

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