

Simply the best!

Writing Instruments Technology by SCHMIDT Technology





For more than 75 years **SCHMIDT Tech-nology** has been developing and producing highly sophisticated solutions for major brands of writing instruments all over the world.

Solid and orientated to a qualitative expansion **SCHMIDT Technology** continuously developed into a company with international reputation. Visionary and innovative, our company introduces again and again new writing instruments technologies, which are always in line with the ever changing market requirements.

Are you looking for individual solutions and innovative writing ideas? Do you want to upgrade your existing product lines or realize new design concepts? If so, **SCHMIDT Technology** is the partner of your choice. Extensive R&D facilities, qualified experts and a vertical range of manufacturing enable us to realize your ideas quickly and flexible. This "time to market" approach allows you to generate quick turnover and to save your money.

The range of experience spans from standard mechanisms and writing components to complete writing instruments. In close dialogue with the customers **SCHMIDT Technology** develops and manufactures writing highlights on demand. The solutions are always tailored to the unique customer requirements.

SCHMIDT[®] Writing Instruments Technology

A complete writing instrument according to your ideas

4 SCHMIDT[®] Advancing Mechanisms for One-colour writing instruments Multicolour writing instruments Multisystem writing instruments

10 SCHMIDT[®] Pencil Mechanisms and Systems for Twist or push action

12 SCHMIDT[®] Fountain Pen Technology Fountain pen nib units Piston converters Piston fountain pen units RollingBall front parts Cartridge-Rollerball-System

19 SCHMIDT® Writing Units for easy*FLOW* Capless System RollingBall FineLiner Ballpoint pens in capillary, large capacity and pressurized technology

27 Norms and Regulations

28 SCHMIDT[®] Writing Media Ball pen inks Inks SCHMIDT[®] Dosage System Technique

A complete writing instrument according to your ideas

SCHMIDT[®] Customer-Specific Solutions

Based on decades of experience in terms of development and production of writing systems, we are in the position to develop and produce customer-specific complete writing instruments as well. By doing this we can offer our customers the unique advantage to source all components from one single supplier: Starting with the customer's product idea via our development and construction by means of CAD/CAM through to the finished product. The project planning is fixed and coordinated by milestones agreed upon with the customer. Our interdisciplinary thinking and acting enables us to turn the customer's ideas into series products, quickly and easily.

We thereby benefit from a large production depth and most modern production processes and methods. We are thus in the position to produce prototypes, pre-production sample series, as well as small and large series in consistent, high quality.

research





idea

construction



quality management



Production competence

- Tools and special devices in our own toolmaking department
- Technical and decorative plastic components
- CNC-turned parts from CNC-turning machine and CNC-turning and milling center
- Metal processing of stainless steel, brass, aluminium, titanium
- Stylus and laser engraving
- Guillochage
- Stamping
- Manual and machine polishing
- Grinding
- Blasting
- Manual and automated assembling

production



Surface materials and techniques

- Metal
- Plastic
- Wood
- Leather
- Lacquer coatings
- Electroplating
- Anodised coatings

SCHMIDT[®] Advancing Mechanisms

SCHMIDT[®] System Mechanisms

The idea of creating a set turned out to developing a system mechanism, which enables the use of a G2 large capacity refill as well as our system pencil mechanisms DSM 2005, DSM 2006, DSM 2007 and DSM 2008. Consequently the production of pen housings for the actions "twist" and "push button" as well as "sliding cap" is becoming very economical.

The system mechanism is mounted into the upper part of the pen. The front part of the housing can now take a G2 large capacity refill or a system pencil mechanism. Great advantage for the producer: create a writing set including a ballpoint pen and a mechanical pencil within one and the same housing.

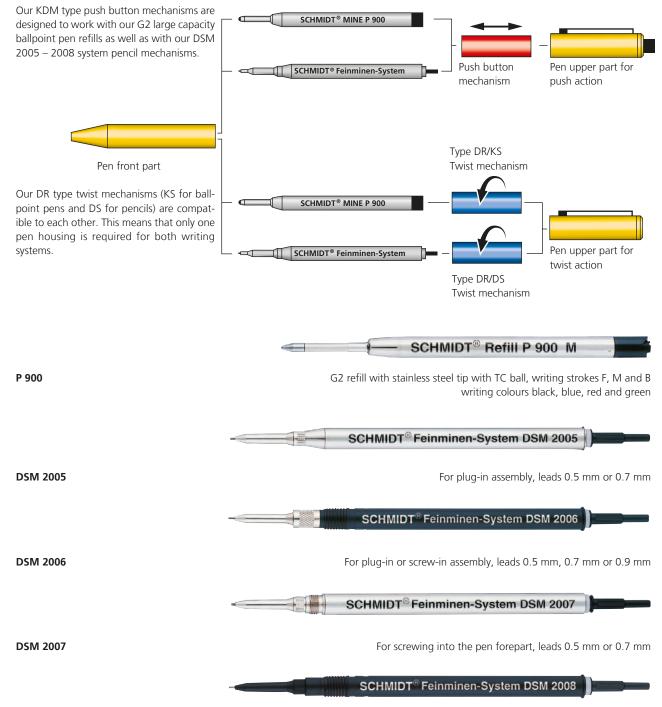
Twist mechanisms are equipped with a friction sleeve avoiding an overtwisting of the mechanism. This offers an additional protection for your high-quality writing instrument.

SCHMIDT[®] One-colour Mechanisms

Actuating mechanisms for one-colour mechanisms are available for unlimited purposes: For twisting, pushing or sliding of all refills with ISO or special dimensions. You will find the most suitable actuating mechanism for your ballpoint pen in our programme. We are also specialized in developing special solutions according to your specifications.



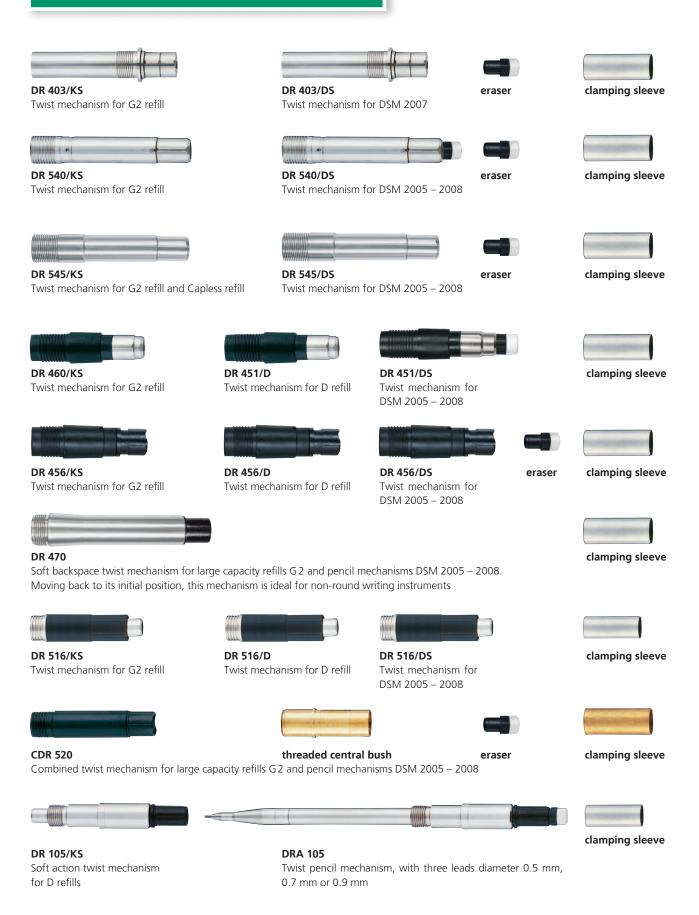




For plug-in or screw-in assembly, leads 0.5 mm

DSM 2008

SCHMIDT[®] System Twist Mechanisms



SCHMIDT[®] Push Button Mechanisms





spring, top bush

threaded bush





Push button mechanism with cam for A2 and G2 refill



SMF/D Push button mechanism with cam for D refills





Push button mechanism with cam for

SMF/CL

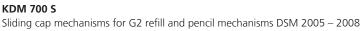
CLD 825 Push button mechanism with cam and functional clip for Capless refills



KDM 820

Push button mechanism for large capacity refills DSM 2005 - 2008







SKM 192

Push button mechanism with cam for A2 and G2 refill

SKM 88





....



SCHMIDT[®] Advancing Mechanisms for Multicolour and Multisystem Pens

SCHMIDT[®] Multicolour and Multisystem Mechanisms

Today consumers increasingly expect top quality and innovative writing instruments in an attractive design. Particular attention is obtained by writing instruments which allow to write in various colours or with several writing systems – like a small office. The possibilities offered by such leading edge products match in a special way today's consumers' requests.

SCHMIDT Technology is offering mechanisms that meet all consumers' needs. Ample combinations between ballpoint pens, pencil mechanisms and multicolour ballpoint pens are thinkable. Your customers' requirements will be accomplished by us in a perfect way.

SCHMIDT Technology stands for premium quality, perfect reliability and durability of all mechanisms for writing instruments. The advantages of **SCHMIDT Technology**'s mechanisms for the customer are obvious.

The manifold advantages of the **SCHMIDT**[®] mechanisms are clear:

- the highest standard in precision and innovation based on decades of experience in the production
- optimal customer specific developments and adaptations of writing instruments mechanisms according to your individual requirements





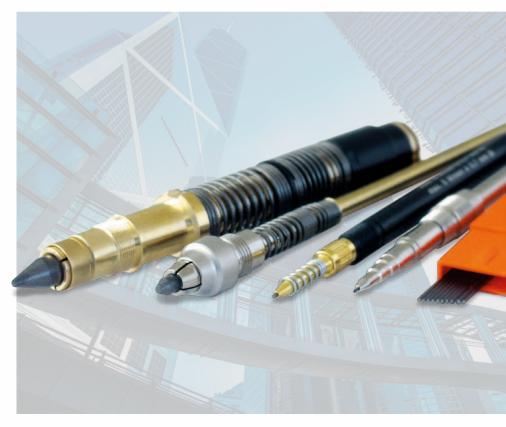


SCHMIDT® Pencil Mechanisms and Systems

Push and twist pencils are traditional and at the same time fashionable. Especially in our computer age the fast and erasable pencil stroke is getting increasingly popular. Using a mechanical pencil to make entries in your agenda, taking quick notes during a conversation or making a sketch is most comfortable.

Today, **SCHMIDT**[®] **push pencil mechanisms** are mostly designed and produced according to customers' requirements. Your special demands and product profiles are always a challenge for us and our ambitious specialists.

SCHMIDT® push pencil mechanisms have proven their quality in many mechanical pencils of many renowned pen manufacturers during decades.







in 12 pcs. plastic cassette 0.5 mm, 0.7 mm and 0.9 mm

High-Polymer-Leads

SCHMIDT[®] Fountain Pen Technology

The culture of writing is celebrated by the use of the most prestigious writing instrument, the fountain pen. Therefore, we do not accept any compromise when the quality of your writing instrument is concerned.

SCHMIDT[®] fountain pen technology is offering a vast variety of choices for the design of your fountain pens. For decades SCHMIDT Technology has been developing and producing finest fountain pen nib units for the most famous brands of the world.

The **SCHMIDT**[®] **fountain pen** programme offers a wide array of different writing nibs of different materials and surface treatments.

This range is completed by a collection of piston converters and most recently a ready-to-be-build-in piston fountain pen unit.

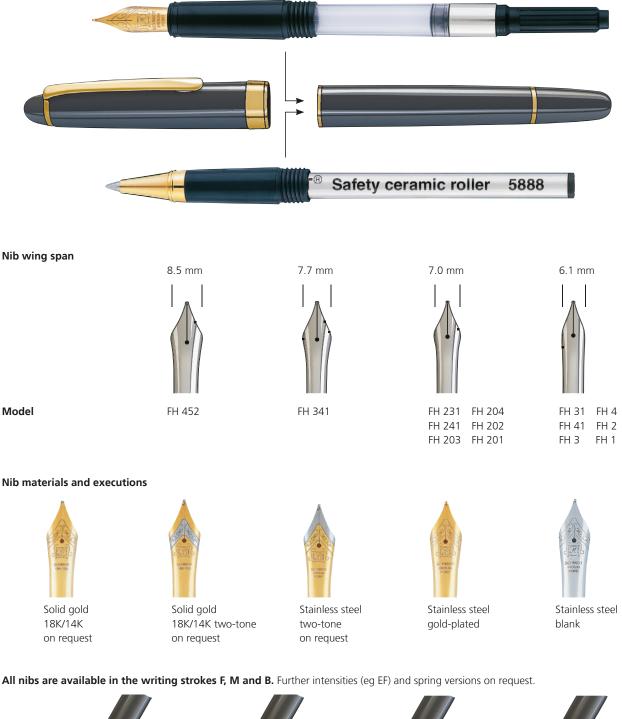
In addition to SCHMIDT[®] fountain pen technology, SCHMIDT[®] RollingBall front parts have been developed, which allow the creation of sets.







1 housing = 2 writing instruments





on request

SCHMIDT[®] Fountain Pen Technology

SCHMIDT® ink feeding system FH 452 ensures a reliable function in all situations. Even in the cabin of an aircraft, where the conditions are really extreme, this system guarantees absolute security.





...safe on everyday life conditions. Extensive tests in co-operation with Lufthansa have confirmed: SCHMIDT® ink feeding systems meet the highest safety requirements.



...flexible with decrease of pressure. With increasing flight altitude, the cabin pressure decreases and the SCHMIDT[®] ink feeding system fills. Even in this extreme situation SCHMIDT[®] fountain pen technology comes up to the highest requirements of a first-rate quality product.



...reliable in cruising altitude.

In an altitude of 11000 m the cabin pressure decreases to a value corresponding to an altitude of 2500 m above sea level (approx. 750 mbar). Even under these extreme conditions the precise **SCHMIDT**[®] ink feeding **system** guarantees writing pleasure without leakage.



Fountain pen nib unit with nib wing span 8.5 mm and fixation ring altitude stability 2500 m including cap sealing



Ready to mount piston fountain pen unit with nib wing span 8.5 mm, based on nib unit FH 452 including cap sealing



Ready to mount piston fountain pen unit with nib wing span 7.7 mm, based on nib unit FH 341 including cap sealing

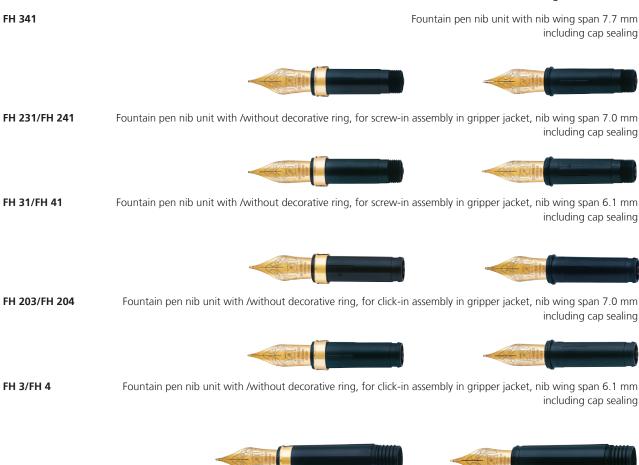
FH 452

KFH 450

KFH 300













Complete fountain pen nib unit with gripper jacket with /without decorative ring, nib wing span 6.1 mm including cap sealing



FH 202/FH 201





for fountain pen and RollingBall front parts chrome-plated, gold-plated

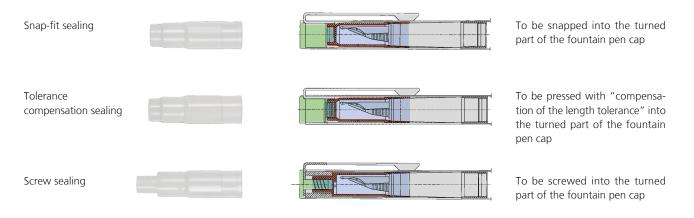
Central threaded bushes

SCHMIDT[®] Fountain Pen Technology

Inner sealing caps for fountain pens and RollingBall

The fountain pen nib units FH 1- FH 241 are suitable for the use of fountain pens with "snap fit caps".

In this case, the sealing holds the cap on the pen housing. A sealing is supplied together with the fountain pen nib unit. For the fixation of the sealing in the fountain pen cap, the following versions are available:



For nib wing spans of 6.1 mm and 7.0 mm, these inner sealing caps are available as "click" sealings with a sound, audible "click". For RollingBall front parts these types of sealings are also available without ventilation hole.





provided for screw cap

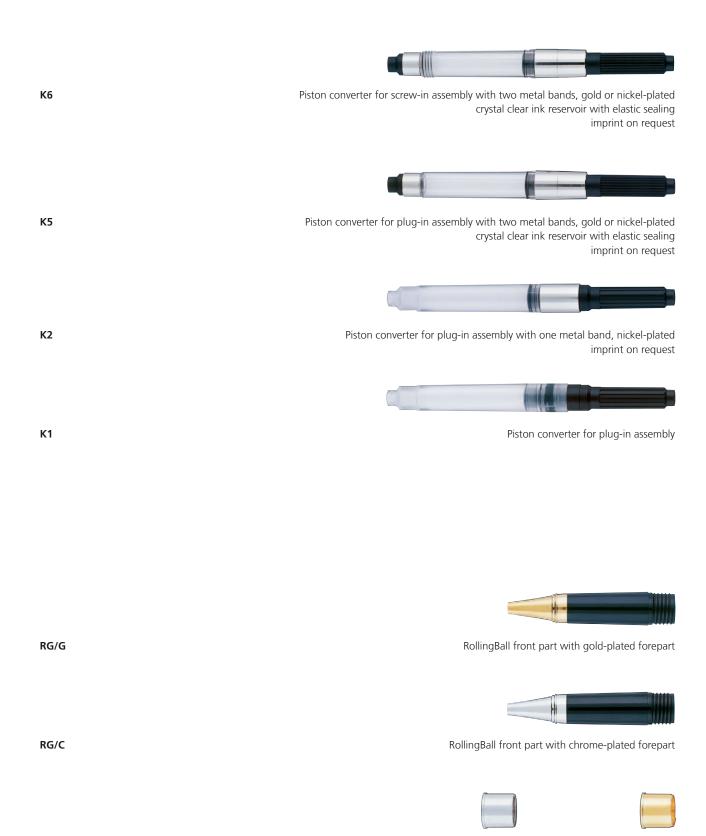
Inner sealing cap for FH 452 and KFH 450



Inner sealing cap for FH 341 and KFH 300

provided for screw cap





for fountain pen and RollingBall front parts chrome-plated, gold-plated

SCHMIDT[®] Cartridge-Rollerball-System

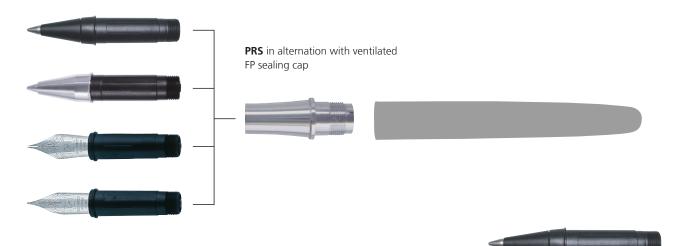
The SCHMIDT[®] cartridge-rollerballsystem PRS is the innovative basis for new rollerball pen concepts in premium quality. Thanks to its specially developed low-wear ball tip, the SCHMIDT[®] cartridge-rollerball-system PRS comes up with previously unreached durability.

The **SCHMIDT**[®] cartridge-rollerball-system **PRS** follows the functional principle of a fountain pen with common ink cartridges. The writing tip is used again and again and will not be discarded.

Writing instruments, fitted with the **SCHMIDT® cartridge-rollerball-system PRS** are therefore not only very economical but in particular environmentally friendly.

Talk to us, we support you with all our experience.





Cartridge-Rollerball-System with 0.5 mm and 0.7 mm TC ball compatible with FH 41 and FH 241



Cartridge-Rollerball-System with 0.5 mm and 0.7 mm TC ball compatible with FH 41 and FH 241

PRS plastic

PRS metal

SCHMIDT[®] easy*FLOW*



SCHMIDT Technology, the specialist in writing technology, presented a completely new class of writing instruments. The new generation of writing systems is called SCHMIDT[®] easyFLOW and has found a very big response.

More easily than any other writing system the tip of the **SCHMIDT**® **easyFLOW** glides over the paper. The ink flow starts instantly even after a longer pause of writing. Easily, as never seen before, you get a writing that is regular, strong, precise and clean.

SCHMIDT[®] **easyFLOW** combines the advantages of the well-known ballpoint refill with those of a rollerball refill creating a completely new market segment in the field of writing instruments.

SCHMIDT[®] easyFLOW made by SCHMIDT Technology is actually predestinated to take high-valued writing instruments out of the middle class and to meet the demands of exigent customers for a premium writing system. The SCHMIDT[®] easyFLOW is available in the large capacity refill size G 2 and the D style as per the standard DIN ISO 12757.

Thanks to the excellent cap-off time, cap sealings are not required. Therefore the **SCHMIDT® easyFLOW** is especially suitable for retractable push and twist pens without cap – and this without using any safety mechanisms.





New refill type in G2 format for a smooth and easy writing feeling. Stainless steel tip with 1.0 mm TC ball, including tip protection cap writing colours black and blue

easyFLOW 9000

SCHMIDT® easyFLOW 6000 M

D refill with stainless steel tip with 1.0 mm TC ball writing colours black and blue



SCHMIDT[®] Capless System

The **SCHMIDT**® **Capless System** is an innovative system for smooth and elegant writing. This system combines the individual writing characteristics of a fountain pen with the convenience of a ballpoint pen. You do not need a protection cap for this anymore. While the ink is drying quickly on the paper, it does not so within the refill itself – for more than one year!

The development of the SCHMIDT[®] Capless System proved once more the innovation power of our company. Our high degree of creativity and technical performance enables us to continuously give impulses to the writing instruments industry. This is crucial for our customers to maintain and develop their leading position on the market.







SCHMIDT[®] Capless System Technique

P 8126	SCHMIDT® Capless System P 8126 length 97.5 mm Ø 6.9 mm Capless rollerball refill with metal tube and front section, stainless steel tip with 0.6 mm ceramic ball writing colours black, blue, red and green, one year cap-off time
P 8127	SCHMIDT® Capless System P 8127 length 97.5 mm Ø 6.9 mm Capless rollerball refill with metal tube and front section, stainless steel tip with 0.7 mm ceramic ball writing colours black, blue, red and green, one year cap-off time
P 8120	SCHMIDT® Capless System P 8120 length 97.5 mm Ø 6.9 mm Capless rollerball refill with metal tube and front section, stainless steel tip with 1.0 mm ceramic ball writing colours black and blue, one year cap-off time
8126	SCHMIDT Capless System mini 8126 length 76 mm Ø 6.9 mm Capless rollerball refill for small pens with metal tube and front section stainless steel tip with 0.6 mm ceramic ball writing colours black, blue



SMF/CL Push button mechanism with cam for G2 large capacity and Capless refills



Soft action twist mechanism for G2 large capacity and Capless refills





CLD 825 Push button mechanism with cam and functional clip for SCHMIDT[®] Capless System

SCHMIDT[®] Liquid Ink Refills

SCHMIDT[®] Liquid Ink Refills offer great performance and easy handling. This convenience is owed to an easy and smooth gliding over the paper. Pen manufacturers all over the world rely on liquid ink refills from SCHMIDT Technology.

SCHMIDT® Liquid Ink Refills with plastic tube are an affordable alternative, and proved their quality in millions of pens worldwide. They are equipped with an end plug in their individual writing colour and a protection cap in the colour of the writing system.

SCHMIDT® Safety Refills avoid drying up by means of a sophisticated ventilation system and are designed for use in writing instruments without perfect sealing caps.







SCHMIDT[®] Safety Rolling Ceramic and Safety RollingTube Refills

The safety technology features extended shelf-life characteristics It is therefore particularly suited for use in pens without cap sealing.

SRC 5888 F	SCHMIDT® Safety ceramic roller 5888 F length 110.6 mm Ø 6.3 mm Safety Ceramic RollingBall refill with metal tube, stainless steel tip with 0.6 mm ceramic ball writing colours writing colours black, blue, red and green
SRC 5888 M	SCHMIDT [®] Safety ceramic roller 5888 M length 110.6 mm \emptyset 6.3 mm Safety Ceramic RollingBall refill with metal tube, stainless steel tip with 0.7 mm ceramic ball writing colours black, blue, red, green, magenta, turquoise, violet, light-green, pink and orange
SRC 5888 B	SCHMIDT® Safety ceramic roller 5888 B length 110.6 mm Ø 6.3 mm Safety Ceramic RollingBall refill with metal tube, stainless steel tip with 1.0 mm ceramic ball writing colours black and blue
SRC 888 F	SCHMIDT[®] Safety ceramic roller 888 F Ø 6.3 mm Safety Ceramic RollingBall refill with plastic tube, stainless steel tip with 0.6 mm ceramic ball writing colours black, blue, red and green
SRC 888 M	SCHMIDT ^(a) Safety ceramic roller 888 M length 110.6 mm \emptyset 6.3 mm Safety Ceramic RollingBall refill with plastic tube, stainless steel tip with 0.7 mm ceramic ball writing colours black, blue, red, green, magenta, turquoise, violet, light-green, pink and orange
SRC 888 B	SCHMIDT [®] Safety ceramic roller 888 B Ø 6.3 mm Safety Ceramic RollingBall refill with plastic tube, stainless steel tip with 1.0 mm ceramic ball writing colours black and blue
SRT 5285	SCHMIDT [®] Safety rolling tube 5285 EF length 110.6 mm Ø 6.3 mm Safety RollingTube refill with metal tube and stainless steel needlepoint tip with 0.5 mm TC ball writing colours black, blue

SCHMIDT[®] FineLiner / Fiber refill

SCHMIDT[®] FineLiner / Fiber refill are characterized by a very good storage stability. The specially developed inks are suitable for

longer cap-off times.





SCHMIDT[®] MegaLine Pressurized Refills



SCHMIDT[®] MegaLine pressurized technology turns everything upside down!

These highly sophisticated writing modules are based on an inside over pressure. This enables not only a writing upside down or under the most extreme environmental conditions, but also a writing with highest speeds.

The **SCHMIDT® MegaLine** system allows to write and to draw in each possible situation without any problems – this is really cutting-edge refill technology.

Writing instruments equipped with **SCHMIDT® MegaLine** pressurized refills are a reliable partner for their owner – always and everywhere.

Thanks to their air tight system, these refills have a literally unlimited shelf-life. They are equipped with stainless steel tips manufactured with utmost precision as well as special ball pen inks developed exclusively for this purpose.



	SCHMIDT [®] MegaLine P 950 M
P 950	G2 refill with stainless steel tip, writing stroke M writing colours black, blue
	SCHMIDT [®] MegaLine 4889 M
S 4889	Length 89 mm, stainless steel tip, writing stroke M writing colours black, blue
	SCHMIDT [®] MegaLine 4876 M
S 4876	Length 76 mm, stainless steel tip, writing stroke M writing colours black, blue
	SCHMIDT* MegaLine 620 M
S 620	D refill with stainless steel tip, writing stroke M, writing colour blue

SCHMIDT® Ballpoint Refills

As the first manufacturer in Germany **SCHMIDT Technology** has been developing and producing ballpoint refills since more than half a century. The long experience in development combined with special production techniques resulted in products with remarkable characteristics. Many renowned writing instruments manufacturers worldwide assemble their ballpoint pens with refills coming from our company.

SCHMIDT® Ballpoint Refills of the top class are equipped with high-quality stainless tips and TC balls.

SCHMIDT® Ballpoint Refills of the standard class are equipped with brass or nickel silver tips.

P 900

P 900

S 635

S 630

S 700





A2 refill, writing stroke M writing colours black, blue

SCHMIDT[®] Refill 700 Silberweiss

A2 refill, writing stroke M, erasable silver white ink, writes on light and dark surfaces

S 700/s silver white



SCHMIDT[®] Refills Packing Units



PB 10 10-pcs. plastic bag

PP 20

Plastic cassette

for 20 D-refills



PB 1/10 10-pcs. tear-off plastic strip



Individual tube for **liquid ink refills** (128 mm) Individual tube for **large capacity refills** (102 mm) Individual tube for **Capless refill P 8126** (110 mm)

Norms and Regulations

PK 5

Plastic cassette

for 5 D-refills

All our refills are in accordance with **ISO 12757-1** i.e. **ISO 14145-1**. The standard colours of the ball pen ink refills are in accordance with **ISO 12757-2** and thereby document-proof.

Thus all refills are resistant against water, acid, alkaline solutions, bleach and light and therefore suitable for use in public offices and authorities.

The ball pen inks and the inks of the refills made by **SCHMIDT Technology** are in accordance with EN 71-3. All raw materials used for our refills and inks are pre-registered or already registered in accordance with REACH Regulation (EC) No. 1907/2006. All products have a much lower concentration of SVHC substances than the required 0.1 % or are even SVHCfree.

Accordingly, our products are plasticizerfree. Furthermore the European Regulation (EC) No 1272/2013 regarding polycyclic aromatic hydrocarbons can be confirmed.

In case you wish to export the refills to the USA, we can issue certificates regarding the TSCA and the California Proposition 65.

Further regulations on demand.

Due to the high quality requirements of our customers we manufacture all our products exclusively in Germany at our premises in St. Georgen. Most of the ball pen inks and inks are produced by **SCHMIDT Technology** itself or additionally bought from German manufacturers.

"Made in Germany" is our basis.

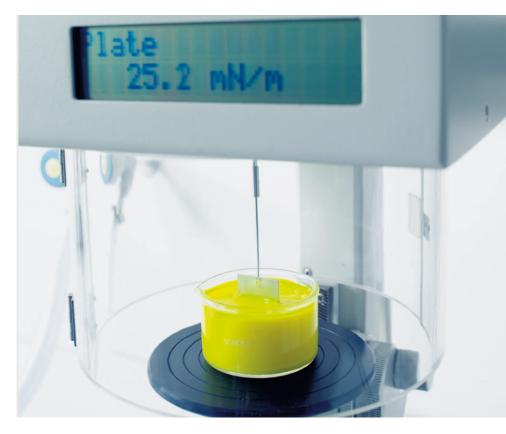
SCHMIDT[®] Writing Media

Regarding the development of inks and ball pen inks you can rely on the development competence and the know-how of **SCHMIDT Technology**. Decades of experience in the development and production of the most diverse writing media are the basis for new products which comply with all current legal requirements in Europe. We are producing exclusively in Germany.

These writing media are only used in the products that are manufactured by **SCHMIDT Technology**.

We can develop almost each customerspecific colour for you upon submission of technical specifications and a given economic efficiency. The required tests are made in our chemical laboratory using the most modern test equipment. We will not supply these products to you until they have been tested intensively and until they meet our own high standards of quality.

It is our challenge to meet your requirements.



SCHMIDT[®] Dosage System Technique

We develop and manufacture customerspecific dosage systems for the most diverse applications of fluid media. The basis for successful products is our comprehensive know-how in product development, implementation in production toolings and assembly devices, as well as in applicationsupporting-chemics. The implemented materials are precisely adapted to match the requirements of the various media.

Another point is the topic "Time to Market". Our own tooling, devices and mechanical engineering allow short project stages from the product idea to the finished product. The necessary application test procedures are coordinated directly with the customer.

Here the following facilities are available:

- Application supporting chemical laboratory
- Facilities for climatic and environmental tests
- Facilities for physical tests



We are having long-time and practical experience for the implementation of the following media:

- Solvents or water-based media
- Adhesives
- Correction Fluids
- Mineral and synthetical oils
- other media on request

We use the following sophisticated applicators:

- Springloaded extruded tips
- Ball tips
- Fibre wicks
- Brushes

SCHMIDT Technology GmbH

Feldbergstr. 1 78112 St. Georgen / Germany Phone +497724/8990 Fax +497724/899101 info@schwidttechnology.de www.schwidttechnology.de