

Lasting protection with ERHARD Pro-Enamel



ENAMEL – A FASCINATING TRADITIONAL MATERIAL



Around 3,500 years ago the first pieces of jewellery were enamelled on Cyprus as burial objects. The Romans and Celts also knew this fascinating material, whose resistance is demonstrated by the fact that many of these valuables have retained their original beauty even after thousands of years in the ground. For many centuries, enamel was used for producing jewellery, and in later times it was also used for household goods and road signs. Today, thanks to its special properties, enamel is also an indispensable engineering material in a large number of industrial applications.

After it has been fired, enamel is a vitreous, high-strength material, which forms a durable and permanent bond with the metallic substrate material. The raw materials used to make enamel are mainly borax, feldspar and quartz, as well as fluorite, soda, cryolite and manganese and nickel oxide. Tin oxide, titanium silicate or antimony trioxide as well as colour oxides are also added later in the manufacturing process.



The enamel slurry is sprayed onto the metal, especially for large valves such as this butterfly valve. After it has been fired in the furnace at over 700 °C, the desired vitreous, high-strength enamelling is created in the required colour.

There are several steps in the manufacture of high-quality enamelling. Firstly, all the raw materials are finely ground and melted; the molten material is then poured into water and quenched. The result is a granular, vitreous frit, which is now finely ground, during which water, clay and silica dust as well as turbidity materials and pigments are added. The result is the enamel sludge.

The valves to be enamelled are first subjected to degassing annealing at around 900 °C, in order to remove all spurious constituents from the cast iron, which would otherwise escape from the metal during firing and damage the vitreous enamel. After they have cooled, the valves are carefully cleaned, and then the slurry is applied. This can be done by spraying, immersion or pouring, depending on the shape of the valve.

The slurry is now left for a while to dry and, following careful inspection, the actual melting-down process begins in special furnaces at temperatures of around 720 °C. The metal surface under the slurry oxidises even during the drying process. When it is heated in the furnace, the enamel dissolves this oxide layer again, chemical adhesion reactions take place and strong mechanical anchoring of vitreous enamel and metal is produced. After cooling at room temperature in a draught-free environment, the enamelled valve is ready for further processing.

ERHARD PRO-ENAMEL – OPTIMUM PROTECTION FOR VALVE AND MEDIUM

The basis for perfect enamelling to the DIN 51178 standard is the correct metallic substrate. ERHARD makes its valves from high-quality spheroidal graphite cast iron, which contains precisely defined fractions of carbon, silicon, manganese, phosphorus, sulphur, magnesium, aluminium and other trace elements. Perfect bonding during firing only occurs with this exact mixture.

ERHARD Pro-Enamel – more than just a coating

With enamelling, the vitreous enamel does not lie on the component as a separate layer, as is the case with powder or wet paints, instead it physically and chemically bonds with the base material. Thanks to the diffusion processes that occur during the firing, excellent adhesion and at the same time a true composite material is created. This is reliably protected against possible tunnelling, even if the valve is mechanically damaged. The composite steel-enamel is absolutely impervious to water vapour and oxygen, diffusion or blistering between the substrate and coating is excluded.

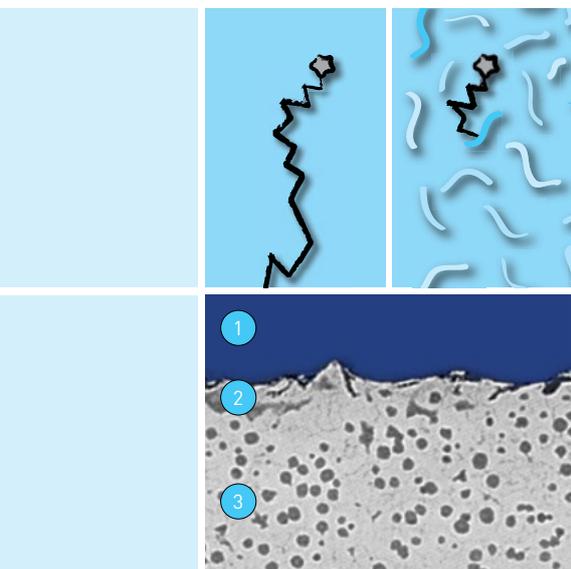
This bonding remains stable, even if the material is bent and other stresses such as internal pressure, pipe forces or earth loads, and reliably prevents the enamel from flaking off. ERHARD Pro-Enamel is also highly elastic, similar to glass, as seen in glass fibres or multi-layered car windscreens. A decisive factor here is also for the optimum layer thickness to be selected for the required area of use.

As a special characteristic, ERHARD valves are coated with special fibrous enamel. In this case, short fibres are added to the frit, which prevent the material from tearing if damaged by external forces. A crack cannot continue, instead it is immediately and reliably stopped at the next fibre – similar to a glue, which is used to stop a ladder in tight. Thanks to the fibrous enamel, ERHARD valves with Pro-Enamel have unrivalled impact resistance.

Maximum resistance for a wide range of uses

The composite material made from steel and ERHARD Pro-Enamel has uniquely high-quality properties – thanks to the company's longstanding experience regarding recipes, applications and firing conditions.

Enamelled valves have outstanding resistance to acids, alkalis and neutral organic media. At the same time, they are also extremely temperature resistant and can be used for water up to 60 °C. Vitreous enamel is not only suitable for constant media temperatures; it can also be used where sudden temperature changes occur. And last but not least, the high hardness of 600 HV provides extremely good resistance to abrasive media too.



While small cracks can propagate in ordinary enamel, the fibres in ERHARD Pro-Enamel immediately stop cracking. The vitreous enamel forms a keyed connection with the cast iron and forms a bonding or adhesion zone (2) between the enamel layer (1) and the cast iron as substrate material (3), in which the iron and enamel chemically and physically bond.

Thanks to these properties, the products can be used in a wide range of applications, from raw water to drinking water and seawater through to sewage, even if it is acidic or alkali.

ERHARD Pro-Enamel not only protects the valve on the inside, but also securely and reliably protects fully enamelled valves from corrosion on the outside. Therefore, even in soil class III, no further protective measures are necessary before the valve is installed.

Safety for drinking water and use

The flow of the enamel material during the melting process produces an extremely smooth surface, far smoother than could possibly be achieved with conventional machining such as precision lathing or sanding. This produces two large advantages.

First, the smooth surface (Ra 0.05) ensures perfect hygienic conditions. Mineral constituents in the water, as well as organic constituents and microorganisms find it extremely difficult to settle on the valve. This prevents a mineral crust from growing, which would otherwise reduce the cross-section and, therefore, the water passage and could quickly result in failure of the valve.

ERHARD Pro-Enamel is also the ideal countersealing surface for elastomer seals. In this case the seal can be placed directly on the smooth vitreous enamel. This reduces the initial operating forces and facilitates opening and closing. In addition, the seal geometry is retained for a long time due to the extremely low friction wear, this means the seals have to be replaced far less frequently, and the surface touched by the medium is not changed.

Economic and environmentally friendly

Vitreous enamel is an extremely durable material. It is not without reason that road signs and advertising boards are made from enamel, which does not change and retains its colour, even in extreme weather conditions and long exposure to UV radiation, e.g. in water treatment with UV light. Embrittlement and chalking, which can occur in other corrosion protection systems, is completely prevented due to the material composition of the enamel.

The long life also ensures a high degree of environmental compatibility, which begins during the manufacturing process. For example, only raw materials in adequate supply are used. In addition, ERHARD has developed a special single-coat method, which produces the same material properties in only one pass, for which otherwise a two-stage method with primer and coating enamel would be necessary. This saves material and energy during production. ERHARD valves with Pro-Enamel can also be easily melted and reused at the end of their useful life.

No questionable substances are used during production. Combined with the extreme hardness and the resulting minimised attrition, enamel is physiologically completely safe and is therefore safe for people and the environment.



The long life, combined with very good colour resistance, is the reason why enamel is used for street signs and house number signs.

It is not without good reason that glass is the most frequently used container for drinking water. What could be more obvious, than to also use valves that are equipped with a glass-like material such as ERHARD Pro-Enamel to transport the water.

THE ENAMEL PROFESSIONALS FOR MANY DECADES



email

ERHARD Pro-Enamel naturally fulfils the requirements of the German Enamel Association (Deutscher Email Verband) and, therefore, carries the „real enamel“ quality seal.

ERHARD valves with vitreous enamel have been successful on the market for many decades; this means that we have extensive experience and comprehensive process know-how for this technology. A modern enamelling plant in our factory in Heidenheim enables us to achieve flexible and yet high-quality production, as we can seamlessly monitor all the steps of the enamelling with ERHARD Pro-Enamel.

This begins with the degassing annealing in the first firing furnace, which is followed by the surface treatment of the workpiece. Before it can be enamelled, the valve must be bright and free of dust and grease, it must also have a certain roughness, which is achieved by bright abrasive blasting with steel shot or grit. The slurry is then applied by spraying, or on internal surfaces using a special centrifugal process, which ERHARD developed for this purpose. In both cases, the coat thickness of 250 µm, the defined industrial standard, is applied.

Two furnaces ensure that the firing process takes place with precisely defined temperatures and times and suitable rooms are available for the cooling in draught-free ambient air.

Perfect quality – comprehensively tested

The continuous production process in-house enables optimum quality assurance. The controls are not performed on random samples; instead, each individual valve is inspected in detail. It goes without saying that the entire production has ISO certification.



After the slurry has been applied, it is initially left to dry until it has reached the optimum residual moisture for the firing process. During the drying the colour of the slurry changes. The two modern furnaces in the Heidenheim factory enable high-quality enamelling.

VALVES WITH ERHARD PRO-ENAMEL FOR EVERY TASK

Fully enamelled

ERHARD maintains a wide range of fully enamelled valves in stock:



ERHARD Underground hydrant & ERHARD CITY hydrant



*ERHARD ROCO Premium butterfly valve**



*ERHARD Premium Multamed gate valve**



*ERHARD ABS Premium service clamp**

Partly enamelled

The product range is supplemented with numerous models, which not only have an EKB coating on the outside, but also have enamelling on the inside of the valve:



ERHARD ROCO butterfly valve, optionally dismantling type



ERHARD EAK butterfly valve



ERHARD TWIN-AIR valve



ERHARD non-slam nozzle check valve



ERHARD reflux valve



ERHARD Classic post hydrant and ERHARD post hydrant with protective mantle



ERHARD post hydrant and ERHARD industrial hydrant

** ERHARD ROCO Premium butterfly valve, ERHARD Premium Multamed gate valve and ERHARD ABS Premium service clamp are also available with EKB epoxy coating and a combination of EKB and enamel.*

For further information on all ERHARD valves, visit our internet site: www.erhard.de

ERHARD UNDERGROUND HYDRANT WITH PRO-ENAMEL



The practical recesses facilitate positioning of the ratchet during assembly.

Thanks to the notch in the PUR cone, the hydrant can be reliably drained, so that there is almost no residual water in it.



The ERHARD CITY hydrant, a post hydrant with break system, a stainless steel above-ground post and all the design characteristics of the ERHARD underground hydrant, has an underground post enamelled on the inside as a standard feature, and an optional fully enamelled head, which thanks to the optimum UV resistance, still has its original colour even after many years.

Hydrants have numerous areas of use in drinking water nets, for example, drawing fire-fighting and emergency water, providing temporary network connections during emergency deployments, venting lengths of pipes and temporary water supply for events or on construction sites.

ERHARD offers its users the economic product variants of its hydrant family. For this reason, the ERHARD hydrant has proven its worth to utility companies, fire services and in other areas of use for many years. ERHARD underground hydrants represent the latest state of the art standards; conform to EN14384 and the hydrant guidelines W 331.

Well-thought through safety

ERHARD hydrants are equipped with a safety interlock. This prevents dangerous ejection of the inner set of fittings, should the working pressure be unforeseeably applied at the shut-off cone when the hydrant is dismantled.

Tried and tested double cut-off

ERHARD hydrants are available with an optional double cut-off. Thanks to this additional cut-off with rubberised multi-chamber ball, it is possible to replace the inner set of fittings under full working pressure. In both variants – with or without double cut-off – the same structural components are used.

Innovative PUR shut-off cone

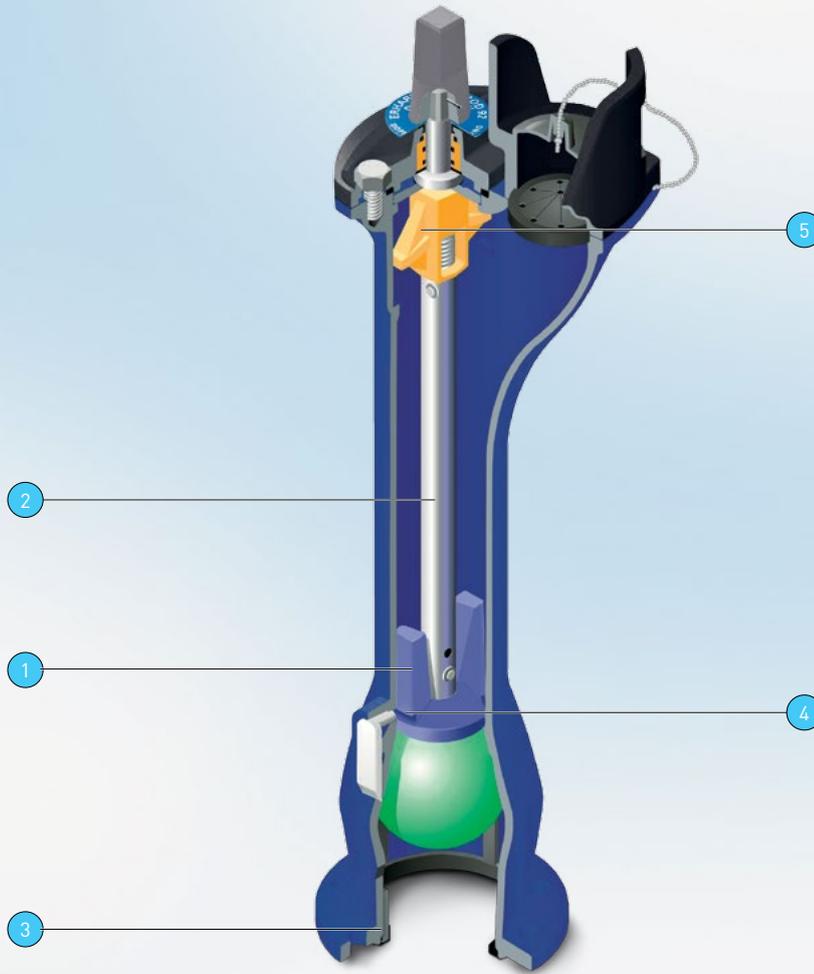
At ERHARD the shut-off cone of the hydrant is made from PUR. An especially developed material composition is used for this, with very high tensile strength and elongation at break and low water absorption. This ensures very high abrasion resistance and, therefore, lower wear than with rubber materials. PUR is also very resistant to ageing, which prevents crack inception and embrittlement. PUR also has a very good tear propagation resistance; therefore, material damage can only spread to a very small extent. A low coefficient of friction produces good sliding properties, therefore, only low torques are required for opening and closing. And last but not least, PUR is insensitive to dirt in the cone seat. The full impermeability and life are significantly increased thanks to the outstanding recovery of PUR.

Other design features

Stem seal, drainage seal and shut-off cone are insensitive to high flow velocities, which ensures uniform actuating torques.

- The PUR sheathed shut-off cone is connected to the pressure pipe by a secure compression connection and reliably seals in the enamelled seat of the bottom part of the post.
- The integrated seal in the connection flange enables easy assembly.

PROPERTIES AND ADVANTAGES AT A GLANCE



No.	Component	Properties and advantages
1	Shut-off cone made from PUR	High tensile strength, low water absorption and therefore low wear
2	Inner fittings made from tubular steel	High stability with simultaneously low weight
3	Connection flange with integrated seal and recesses for positioning the ratchet	Easy assembly and installation
4	Notch in the PUR cone	Complete draining of the hydrant for optimum hygiene
5	Safety interlock	Prevents the fittings from being ejected, if the working pressure is still applied during dismantling

ERHARD ROCO PREMIUM BUTTERFLY VALVE WITH PRO-ENAMEL

The purpose of butterfly valves is to reliably start and stop the flow of media safely and at any time. The ERHARD ROCO Premium butterfly valve, with nominal sizes DN to DN 600, with its numerous innovative details represents consistent continued development of ERHARD butterfly valves, tried and tested for decades.



The polygonal shaft-hub connection is absolutely free of play, another result of decades of development and production know-how at ERHARD in Heidenheim.

Perfect force and form closure – the new polygonal shaft-hub connection

The innovative polygonal shaft-hub connection has a fully closed valve eye, does not require any additional connection elements and, therefore, no separation joints and, due to the notch-free polygonal profile, provides 20 % more torque reserves with the same shaft diameter. State of the art, precision production technology enables the connection to be made absolutely free of play and, together with the flow-optimised shape of the valve disc, prevents any fluttering whatsoever. The new type of design also allows complete encapsulation of the connection between the shaft and valve disc, which means that the shaft is no longer in contact with the medium. Sealing consistently and logically occurs at coated parts of the component, a decisive plus for protection against corrosion and durability.

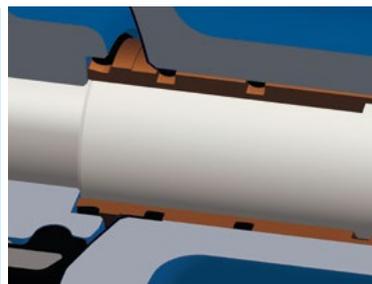
Optimum protection for valve and medium

The innovative new enamelling also includes the sealing surfaces. Highly modern production technology and exact processes enable precisely toleranced and corrosion protected hole diameters. All precisely set o-rings on the output stem seal on the vitreous enamel. The fully encapsulated output stem has an anti-blow out design and, together with the closed valve eye without securing elements, also contributes to the corrosion protection. ERHARD ROCO Premium butterfly valves are also equipped with a soft-sealing main seal, whose sealing ring sits directly on the smooth vitreous enamel. The fully rubberised clamping ring simultaneously acts as a sealing element, is fixed, media-tight, to the valve disc by means of countersunk head screws, it can be easily readjusted and if necessary can be easily replaced at any time.

Innovative engineering down to the smallest detail

The perfect design is also reflected in all the other details:

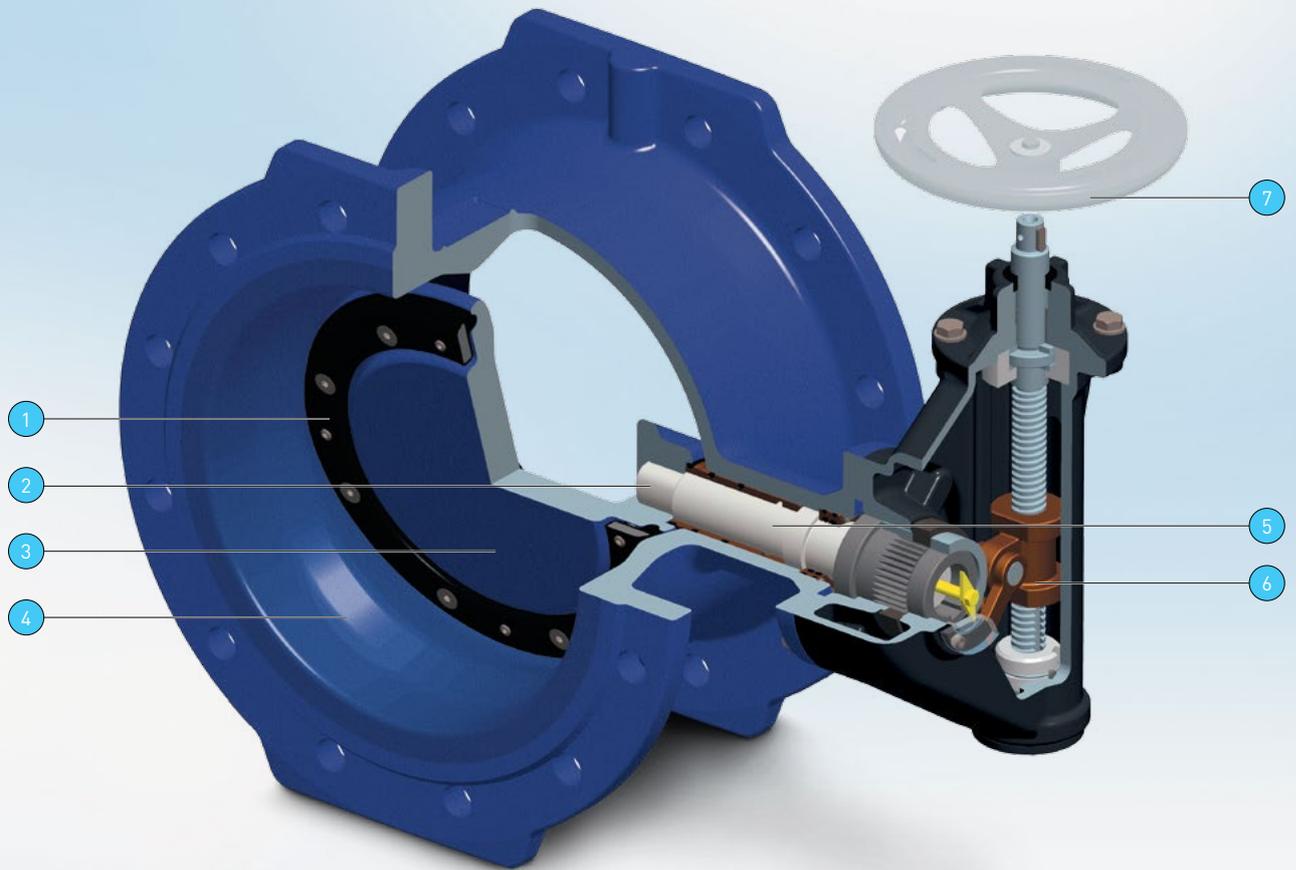
- The valve discs are supported with double eccentricity. When opened, they turn, but at the same time move away from the seat ring and, therefore, lift up off the seat after a few opening degrees.
- ERHARD ROCO Premium butterfly valves are designed with flow optimisation to ensure minimum effects on the flow when the valve is open. This ensures that the whole facility plant can be operated extremely economically, for example, with the lowest possible pumping capacity.
- ERHARD ROCO Premium butterfly valves are delivered with the new developed sliding crank mechanism (SKG), whose movement kinematics are exactly the same as the valve's characteristic curve. This means that the drive moment is virtually constant over the entire stroke. Slowed down closing speeds near the „CLOSED“ position minimise the risk of water hammers.



The corrosion protection with optimised details, achieved through shaft sealing on precisely coated shaft holes, enables a shaft design with no contact with the media.

The new developed sliding crank mechanism is optimally adapted to the butterfly valve and ensures safe and reliable opening and closing without force peaks.

PROPERTIES AND ADVANTAGES AT A GLANCE



No.	Component	Properties and advantages
1	Soft-sealing, opening with double eccentricity butterfly valve with securely fixed profile ring	Optimum sealing performance and easy to open and close, minimum mechanical stress
2	Connection of drive shaft and valve disc by means of innovative polygonal shaft-hub connection	Reliable force transfer without play and with high torque reserves for maximum safety
3	Valve disc with optimised flow performance	Low pressure loss and high cost-effectiveness
4	High-quality enamelling and perfected design with ERHARD Pro-Enamel	Long valve life due to corrosion protection with optimised details
5	Smooth, easy moving and encapsulated bearing and sealing part	Safe, reliable protection of sensitive media such as drinking water
6	ERHARD slider crank mechanism (SKG) optimally adjusted to the valve's characteristic curve	Safe and reliable opening and closing without force peaks for minimised actuating forces
7	Standardised connections for all types of actuators: from the handwheel to the electric drive	Perfect operability in all installation situations

ERHARD PREMIUM MULTAMED GATE VALVE WITH PRO-ENAMEL



The shut-off wedge has a cast iron core and is completely covered with an elastomer coating for resilient sealing. Integrated sliding pads ensure easy actuation.



Gate valves can be used in many media, such as drinking water, service water, fire-fighting water, sewage, seawater, air (compressed air, vacuum) or non-aggressive gases.

The protective cap has three integrated sealing lips; the bayonet stem bearing has all-round enamelling for optimum corrosion protection.

The „gate valve“ principle is one of the oldest types of valve. And it is still currently interesting. In fact, nowadays, gate valves are still among the most frequently used valves. Your advantage: The opened gate valve is located completely outside the passage. The media flow is, therefore, not exposed to any obstructions, the flow resistance is low and the settling of solids is avoided. Today, resilient-seated gate valves with elastomer-sheathed obturator, such as the ERHARD Premium Multamed gate valve, are used, which ensure improved sealing even at low closing pressure.

Patented stem seal

The new type of stem seal used in the ERHARD Premium Multamed gate valve is made from high-quality elastomers. In addition, a protective cap with three integrated sealing lips reliably protects against dust and moisture. If necessary, the stem seal can be replaced under full working pressure. The stem bearing is not screwed onto the housing, but instead is inserted, keyed in the body with a bayonet joint. In this way it became possible to seamlessly enamel the bonnet all the way around – for optimum corrosion protection. The stem bearing is also sealed off from the medium in the system by means of o-rings. In this way, corrosion and wear due to moisture and penetrating solids are prevented.

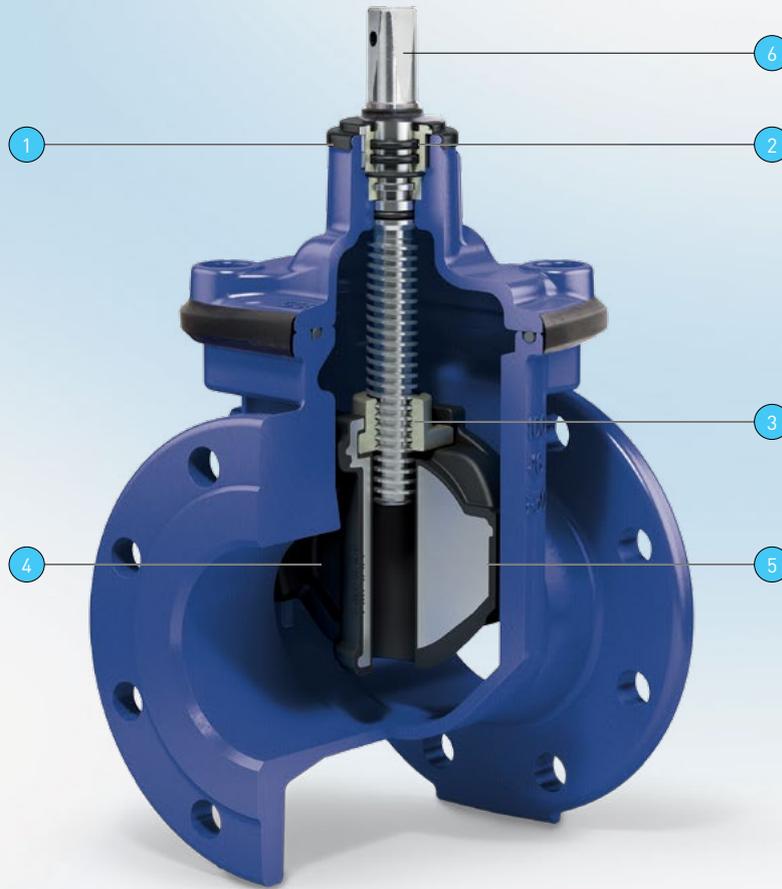
Reliable and durable seal

The shut-off wedge is, without doubt, the most important part of the valve, because it must ensure reliable sealing at all times. The shut-off wedge of the ERHARD Premium Multamed gate valve is made from high-quality cast iron and is completely sheathed with an elastomer layer, which enables resilient sealing. This ensures 100 percent impermeability even at a relatively low closing pressure. Any solids that occur are pressed into the elastomer material during closing, which protects the enamel. When opened, the elastomer envelope recovers its original shape and any adhering dirt particles can be washed off. Only durable elastomers with matched elasticity – EPDM for drinking water or NBR for sewage – are used for the ERHARD Premium Multamed gate valve.

Actuation with low torque

The especially wide sealing profile also extends the range of the suitable closing pressure, both downwards and upwards. The side guide profile keeps the wedge in the optimum sealing position and the stem is relieved of the pressure of the medium. Also, sliding pads made from special plastic are integrated in the elastomer envelope. They prevent friction and wear during opening and closing. The result: easier actuation, which also results in lower energy consumption for the operation of electrical or pneumatic drives.

PROPERTIES AND ADVANTAGES AT A GLANCE

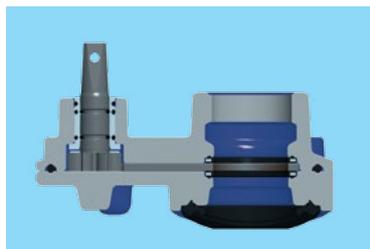


No.	Component	Properties and advantages
1	Protective cap with three sealing lips	Secure sealing against dust and moisture
2	Stem bearing with bayonet joint (patent application submitted) instead of a screw thread	Continuous enamelling of the whole body for optimum corrosion protection
3	Reinforced stem nut	Robust resistance to fracture under high actuating forces
4	Elastomer sheathed shut-off wedge with wide sealing profile	Reliable sealing, regardless of the closing pressure
5	Integrated sliding pads made from special plastic	Easy actuation with low torque and low wear
6	Optionally available with square cap or with coupling sleeve to DVGW worksheet GW 336	Flexible application possibilities in combination with different drive options

ERHARD ABS PREMIUM SERVICE SADDLE FOR WATER WITH PRO-ENAMEL



With the ERHARD ABS Premium service saddle, one body type can be used for all pipe types and diameters. Flexible retaining brackets are used for adjustment on the pipe.



The o-rings, the steel-sheathed sealing rings, the rotary disc and the new saddle seal with the dual sealing system, as well as the tried and tested drive with toothed washer and rotary disc ensure reliable operation even after years of use.

The task of pipe saddles is to create secure and reliable connections between utility pipes and service connections. At the same time, they must be suitable for all kinds of different pipe sizes and materials as well as for different connection positions.

Flexible use

With the new ERHARD ABS Premium service saddle it has been possible to significantly reduce the number of designs required. One body type is available for the different combinations of pressure rating and outlet. Designs are available for pipes made from cast iron and steel, encased cast iron and steel as well as from fibre cement. The adjustment to the different pipe diameters is made using a flexible retaining bracket, which is combined with the respective body. This cuts both storage and transport costs and facilitates daily use. ERHARD ABS Premium service saddles are suitable for nominal sizes DN 80 to DN 300 and for pressure ratings PN 16 for drinking water, and are available with both a vertical and a horizontal outlet with Rp 1½ as well as in the Plasson system (also with vertical or horizontal outlet).

More reliable drive

The reduction to only two moving elements ensures that the valve of the ERHARD ABS Premium service saddle continues to function reliably and move dependably for many years to come:

- The **pinion shaft** made from stainless steel is properly and stably positioned, centrally above the centre of the pipe and mounted in a corrosion protected shaft passage.
- The rotational movement is then transferred onto the **rotary disc** via robust gearing. The 4 mm thick material ensures a high degree of operating safety, even at high working pressure. The smooth surface of the disc prevents deposits from settling and damaging the sealing rings. The shearing principle between the rotary disc and steel sheathed sealing rings also ensures self-cleaning.

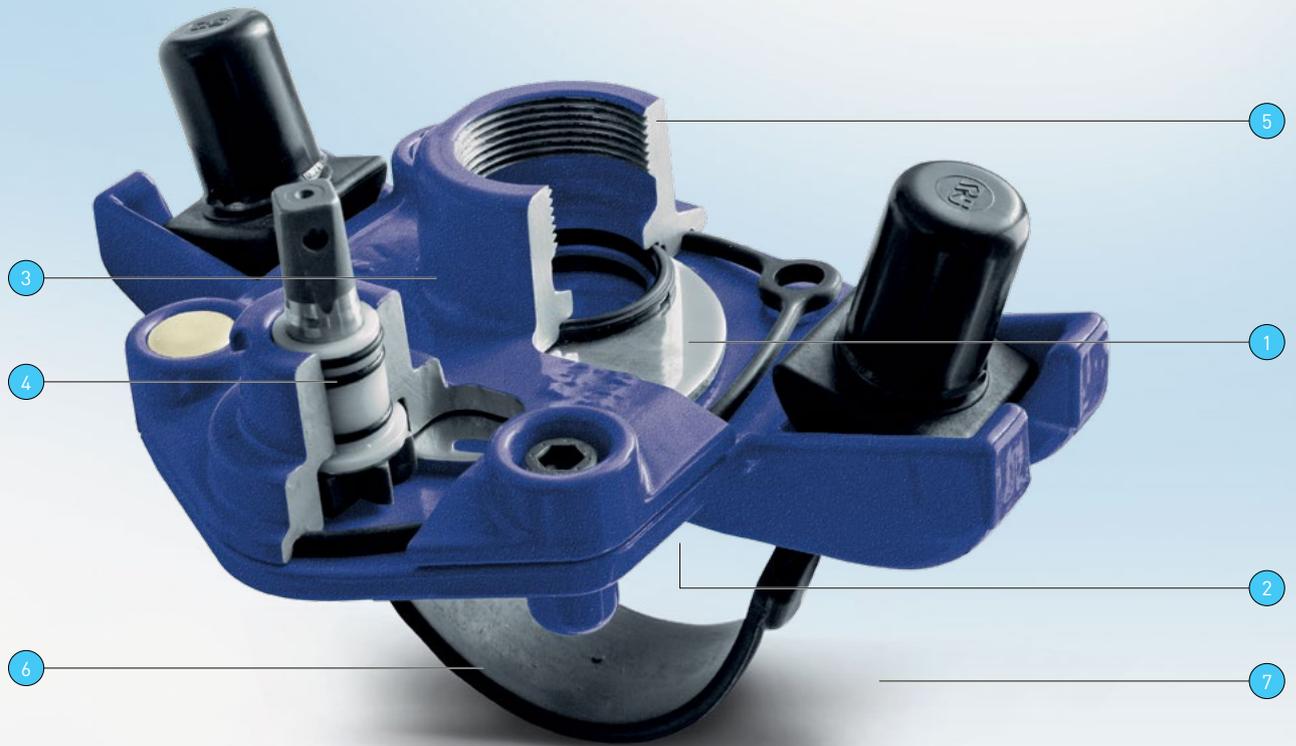
Sealing system further optimised

Apart from the multiple sealing o-rings on the pinion shaft, the steel sheathed sealing rings on the rotary disc and the gasket, the ERHARD ABS Premium service saddle is also equipped with a new saddle gasket concept with the innovative dual sealing system. The system made from EPDM ensures the sealing function is proportional to pressure.

Further advantages of the system:

- All parts are connected with each other; nothing can be lost during assembly. Easy to handle, only one hand is needed.
- In addition, numerous underground installation sets and other accessories are available, for example, an underground installation set with bayonet joint, a standardised interface to GW 336 and a telescopic extension kit for subsequent tapping.

PROPERTIES AND ADVANTAGES AT A GLANCE



No.	Component	Properties and advantages
1	4 mm thick, self-cleaning rotary-disc seal with only two moving components	Robust and durable design with reliable end stops, 1¾ turns between OPEN and CLOSED for opening and closing without causing a water hammer
2	Tapping diameter up to 38 mm, streamlined flow, sealed on both sides	High capacity of more than 16 m³/h at 0.2 bar differential pressure
3	Highly resistant ERHARD Pro-Enamel for increased impact resistance	Optimised, reliable corrosion protection
4	Multiple o-ring seal on the pinion shaft, dual sealing system as saddle seal	Permanent seal
5	Vertical and horizontal outlets, for both Rp 1½ as well as for the Plasson system	Diverse connection options
6	Only one design with corresponding retaining brackets	More economic and flexible use for all pipe diameters and materials such as cast iron, steel or fibre cement and adjustment
7	Intelligent accessories	Bore sealing sleeve, underground installation set with bayonet joint, telescopic extension kit for subsequent tapping



PRICE LIST ERHARD PRODUCTS WITH PRO-ENAMEL

ERHARD Underground fire hydrant
ERHARD City hydrant
ERHARD ROCO Premium butterfly valve
ERHARD Premium Multamed gate valve
ERHARD ABS Premium pipe saddle

ERHARD Underground hydrant with Pro-Enamel



Nominal size DN	Pipe cover m	Form A without double cut-off		Form AD with double cut-off	
		Mat. No.	Price in €	Mat. No.	Price in €
80	0,75	967800	394.00	967804	510.00
80	1,00	967801	431.00	967805	549.00
80	1,25	967802	467.00	967806	582.00
80	1,50	967803	590.00	967807	711.00

Bayonet covers available, optionally self-closing or remaining open, made from EN-JS1050.

ERHARD CITY hydrant with Pro-Enamel



Nominal size DN	Pipe cover m	without A outlet		with A outlet	
		Mat. No.	Price in €	Mat. No.	Price in €
80	1,00	967853	2,261.00		
80	1,25	967854	2,305.00		
80	1,50	967855	2,330.00		
100	1,00	967859	2,557.00	967856	on request
100	1,25	967860	2,590.00	967857	on request
100	1,50	967861	2,647.00	967858	on request

DIN 14384, above-ground post stainless steel, head with ERHARD Pro-Enamel, colour blue

ERHARD ROCO Premium butterfly valve with Pro-Enamel



Nominal size DN	Face-to-face dimension	with handwheel				for underground installation set to GW 336			
		PN 10		PN 16		PN 10		PN 16	
		Mat. No.	Price in €	Mat. No.	Price in €	Mat. No.	Price in €	Mat. No.	Price in €
150	210			968648	2,509.00			968665	2,509.00
200	230	968640	2,877.00	968649	3,027.00	968657	2,877.00	968666	3,027.00
250	250	968641	3,287.00	968650	3,664.00	968658	3,287.00	968667	3,664.00
300	270	968642	4,291.00	968651	4,741.00	968659	4,291.00	968668	4,741.00
350	290	968643	5,014.00	968652	6,017.00	968660	5,014.00	968669	6,017.00
400	310	968644	5,692.00	968653	6,799.00	968661	5,692.00	968670	6,799.00
500	350	968646	7,224.00	968655	9,220.00	968663	7,224.00	968672	9,220.00
600	390	968647	9,555.00	968656	12,411.00	968664	9,555.00	968673	12,411.00

Other sizes available on request

ERHARD Premium Multamed gate valve with Pro-Enamel – face-to-face dimension Series 15 for drinking water

Available combinations (Mat. No. and prices on request)

Nominal size DN	40	50	65	80	100	125	150	200	250	300
Face-to-face dimension mm	240	250	270	280	300	325	350	400	450	500
PN 10				•				•	•	•
PN 16	•	•	•	•	•	•	•	•	•	•

Available from III / 2011

ERHARD Premium Multamed gate valve with Pro-Enamel – face-to-face dimension Series 14 for drinking water

Available combinations (Mat. No. and prices on request)

Nominal size DN	40	50	65	80	100	125	150	200	250	300
Face-to-face dimension mm	140	150	170	180	190	200	210	230	250	270
PN 10				•				•	•	•
PN 16	•	•	•	•	•	•	•	•	•	•

Available from III / 2011

ERHARD ABS Premium service clamp made with Pro-Enamel for drinking water



Nominal size DN	Outlet	Mat. No.	Price in €
80-300	vertical Rp 1½*	969111	213.00
80-300	PLASSON vertical	969119	231.00
80-300	horizontal Rp 1½*	969115	241.00
80-300	PLASSON horizontal	969121	248.00

* design for gas also available

Retaining bracket for ERHARD ABS Premium pipe saddles



Pipe type	fully vulcanised with stainless steel bolts						Stainless steel with rubberised inlay		
	Cast iron and steel			Cast iron and steel			Fibre cement		
Clamp width	PE/cement mortar jacket								
	48 mm			48 mm			90 mm		
Nominal size DN	Ø Pipe, outside mm	Mat. No.	Price in €	Ø Pipe, outside mm	Mat. No.	Price in €	Ø Pipe, outside mm	Mat. No.	Price in €
80	87-104	969050	62.00	100-115	969051	62.00	96-115	969382	62.00
100	110-125	969052	62.00	125-151	969053	62.00	117-138	969383	62.00
125	136-152	969054	62.00	150-166	969055	62.00	145-167	969384	62.00
150	163-179	969056	68.00	177-195	969057	68.00	176-197	969385	68.00
200	215-230	969058	72.00	229-246	969059	72.00	232-253	969386	72.00
250	270-282	969060	78.00	281-299	969061	78.00	284-302	969387	78.00
300	320-335	969062	93.00	333-351	969063	93.00	340-357	969388	93.00



www.talis-group.com

TALIS is the undisputed Number One for water transport and water flow control. TALIS has the best solutions available in the fields of water and energy management as well as for industrial and communal applications. We have numerous products for comprehensive solutions for the whole water cycle – from hydrants, butterfly valves and knife gate valves through to needle valves. Our experience, innovative technology, global expertise and individual consultation processes form the basis for developing long-term solutions for the efficient treatment of the vitally important resource “water”.



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