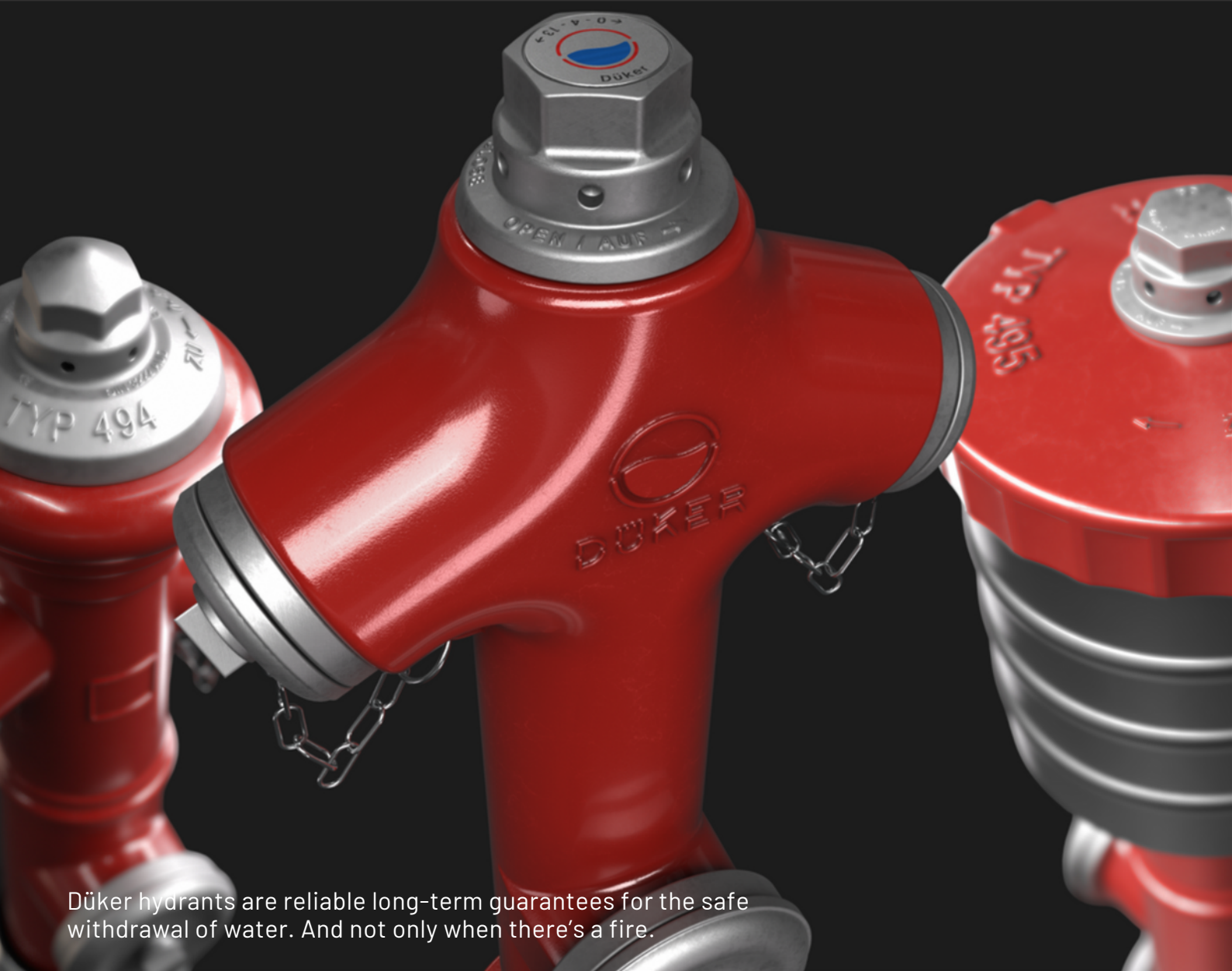


PILLAR HYDRANTS.

TIGHT, CORROSION-
RESISTANT
AND ECONOMICAL.



Düker hydrants are reliable long-term guarantees for the safe withdrawal of water. And not only when there's a fire.

Düker Hydrants – Important Elements of a Modern Public Water Supply

Ductile cast iron hydrants

Hydrants are an important part of the public water supply system, with a wide area of application, such as:

- drawing water for fire fighting and emergency conditions
- setting up of temporary network connections in case of an emergency
- aeration and venting of pipe sections
- temporary water supply during events or on construction sites

The right material is what counts

Material quality is at the core of continued and reliable operations. This is why Düker hydrants are made of ductile cast iron.

Another name for ductile cast iron is spherulitic graphite iron. The material has outstanding properties such as a long service life, density, good corrosion resistance, cost effectiveness and on top of it, is fully recyclable. It is therefore reliable and ideally suited to meet the requirements of our hydrants.

Ductile iron is only corrosion-resistant in combination with good corrosion protection. It is important that the stem is made of forged material. This gives you the certainty of not having any stagnant water in

the stem. The screw connection and additional pin, as well as the solid, forged stem guide, guarantee mass and stability where they are needed.

Permanent all-round protection

In order to ensure even better and permanent protection against corrosion and encrustation, our hydrants are fully enamelled, according to the requirements of the DEV guidelines and DIN 51178.

No chance is given to bacteria on the flawlessly smooth enamel surface. Biofilm adhesion is actively prevented, thus ensuring hygienically and physiologically safe drinking water supply – even during temperature fluctuations.

Maximum protection

All Düker hydrants are equipped with an secured obturator linkage that prevents the obturator linkage to be catapulted out as a result of the existing operating pressure in case of mechanical damage of the upper part or during maintenance work.

DIN outlet coupling, head piece and linkage may be easily replaced by the user.



Düker pillar hydrants

• Type 496

AUD shape, with two upper outlets DN 80 and 100, PN 16, pipe covering 1.00 m, 1.25 m and 1.50 m optional DN 100 with A outlet

• Type 495

AFUD shape with protective cover DN 100, PN 16, pipe covering 1.00 m, 1.25 m and 1.50 m

• Type 494

AUD shape, with two upper outlets DN 80 and 100, PN 16, pipe covering 1.00 m, 1.25 m and 1.50 m optional DN 100 with A outlet

etec-Enamel – the special all-round surface protection for Düker hydrants

Etec enamel is a composite which melds a permanent chemical bond with the cast iron pipe section. Its main strengths are:

- inside and outside corrosion protection including class III soil
- high degree of resistance to mechanical stress (friction, impact, pressure, push)
- ageing resistance
- prevention of blistering between the base material and the coating, by the diffusion of water through the coating
- no sub-surface migration, even in the case of local damage
- climate and media resistance (UV-radiation, humidity, temperature, organic solvents)



Pillar Hydrant 496 – with Dual Shut-off

DN 80/100 / PN 16 – pipe covering 1.00 m, 1.25 m and 1.50 m DN 80 with 2×B outlet, DN 100 with 2×B outlet and optional 1×A outlet

Range of application

- for drinking and raw water
- up to 16 bar
- up to 60 °C

Colour, design and complete all-round enamelling make the 496 pillar hydrant a highly visible, long-lasting and hygienically flawless fitting for water withdrawal from underground pipelines.

It is available in the nominal diameters DN 80 and DN 100 – optionally with or without A outlet – as well as with pipe coverings of 1.00 m, 1.25 m and 1.50 m. The outlets are designed as standardised Storz couplings (B according to DIN 14318, optional A according to DIN 14319), enabling fast and secure connection in the field.

The pillar hydrant 496 features a flange connection according to DIN EN 1092-2 PN 16 and an automatic drainage with optionally integrated pressurised water protection. The safety locking of the internal fittings, the anti-collision design with installation-friendly predetermined breaking point, and the stepless 360° rotation ensure high operational safety and easy handling.

Two upper B outlets (DIN 14318, aluminium, with stainless steel chain) are standard; for DN 100, an optional additional A outlet (DIN 14319) is available.

The pillar hydrant 496 complies with the DVGW test specification W 386, is DVGW-tested and registered, CE-marked according to DIN EN 14384 and meets the latest requirements of the Federal Environment Agency (UBA).

The most important elements

- 1 No thread in the housing at the upper flange, in the upper section and at the B coupling position – thanks to the innovative brass clamp connection.
- 2 Cap made of aluminium, connected to the solid stem extension via stainless steel pins.
- 3 Aeration and vent valve underneath the cap.
- 4 B couplings according to DIN 14318 made of aluminium, attached to the hydrant with a stainless steel chain.
- 5 Optional A outlet (DIN 14319) available.
- 6 Complete linkage made entirely of solid stainless steel.
- 7 Stem and support bearing made of brass, linkage safeguarding with plastic retaining ring.
- 8 Dual shut-off in the lower part.



Technical properties

Upper and lower part are made of ductile cast iron EN-GJS-500-7 and are fully enamelled. The drainage ring is made of grey cast iron EN-GJL-400-18 and is also enamelled. The lower column is coated inside and outside, the upper column inside with Düker etec enamel blue according to DIN EN ISO 11177 (DEV guideline soil class III). The upper column outside is standard in high-quality red enamel – available on request also in blue, yellow, lime green, light grey or anthracite.

The cap, the solid couplings (DIN 14318) and the protective caps are made of aluminium. The cap is connected to the solid stem extension in a service-friendly manner via concealed stainless steel pins. Underneath the cap there is an automatic aeration and vent valve. This closes securely as soon as the hydrant is opened, and opens when the hydrant is closed for ventilation. This allows the water standing in the column to drain reliably through the fully enamelled drainage bore.

The complete linkage is made entirely of solid stainless steel. Stem bearing, linkage safeguarding, guide piece, clamping piece, clamping rings and support bearing are made of brass. All sealing elements are made of EPDM for the highest hygienic requirements. All materials in contact with drinking water comply with the current state of the Federal Environment Agency assessment guidelines.

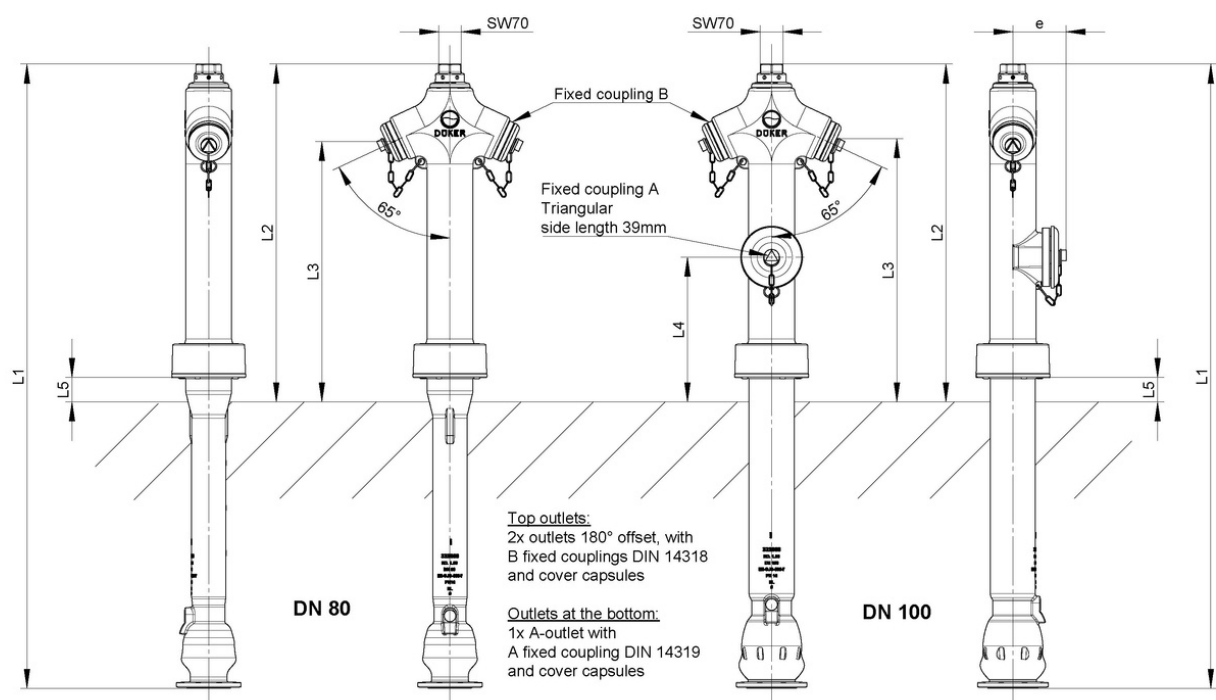
The innovative clamp connection of the B couplings avoids, replaces or bypasses threads in the housing and enables a fully enamelled housing with extended service life and improved corrosion resistance.

The upper part is steplessly rotatable by 360° as standard. Two integrated predetermined breaking rings enable secure fixing and ensure that in the event of an impact – e.g. from a vehicle – neither the hydrant nor the connected pipeline is damaged.

The slim, function-oriented design of the upper part contributes significantly to weight reduction and easy handling. The cast iron lower part is fully enamelled inside and designed as a one-piece unit – eliminating additional connection points and significantly minimising the risk of leakage. An optionally available Düker drainage package enables fast and targeted draining of the discharge water.

The pillar hydrant 496 is equipped as standard with a dual shut-off in the lower part. The rubber-coated steel ball seals reliably and enables linkage replacement even under full system pressure – without any upstream gate valve.





Dimensions and weights

DN	Pipe covering mm	Height of construction (L ₁) mm	Height (L ₂) mm	Height (L ₃) mm	Height (L ₄) mm	Height (L ₅) mm	e	A outlet	Weight kg
80	1000	1940	1050	820	-	75	-	nein	69
80	1250	2190	1050	820	-	75	-	nein	75
80	1500	2440	1050	820	-	75	-	nein	80
100	1000	1940	1050	820	-	75	-	nein	77
100	1250	2190	1050	820	-	75	-	nein	84
100	1500	2440	1050	820	-	75	-	nein	91
100	1000	1940	1050	820	450	75	165	ja	85
100	1250	2190	1050	820	450	75	165	ja	91
100	1500	2440	1050	820	450	75	165	ja	98

Pillar Hydrant 494 – with Dual Shut-off

DN 80/100 / PN 16 – pipe covering 1.00 m, 1.25 m and 1.50 m

Range of application

- for drinking and raw water
- up to 16 bar
- up to 60 °C

Colour and design make the 494 pillar hydrant a highly visible water withdrawal point from underground pipelines.

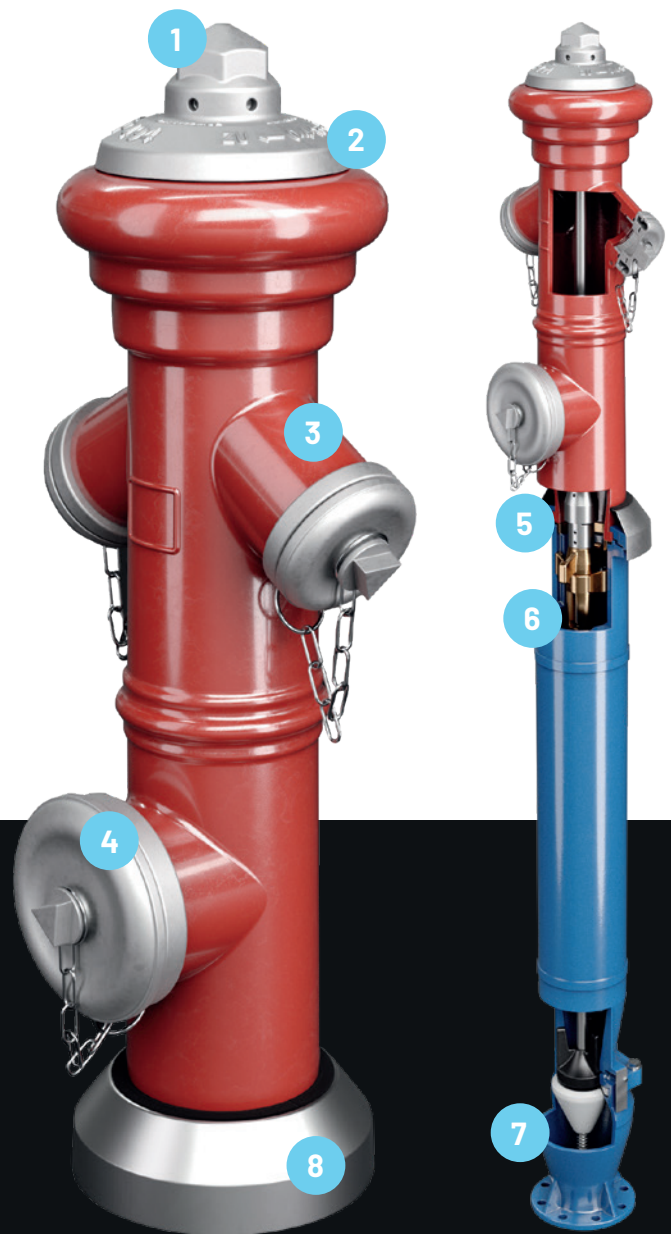
It is available with the pipe coverings of 1.25 m and 1.50 m. As an option, the hydrant is also available in a height-adjustable version. Here, the pipe covering is adjustable in 5 cm increments from 1.10 m to 1.60 m.

The pillar hydrant 494 is available with the nominal diameters of DN 80 and DN 100. The flange connection fulfils the requirements of DIN EN 1092-2 PN 16.

The hydrant corresponds to the standards of pillar hydrants according to DIN 3222, DIN 3321 and EN 14384, as well as the DVGW testing principle VP 325. A DVGW type approval test is also available for this hydrant.

The most important elements

- 1 operating cap, connected with the solid stem extension through a stainless steel pin
- 2 aeration and vent valve underneath the cap
- 3 aluminium B couplings according to DIN 14318, attached to the hydrant by a stainless steel chain
- 4 A outlet available upon request
- 5 linkage made entirely of stainless steel, separated by a brass coupling at the progression to the upper part
- 6 brass linkage safeguarding arrangement
- 7 lower part with dual shut-off
- 8 Steplessly rotatable upper section



Technical properties

All body parts are made of EN-JS 1050 ductile cast iron and are enamelled on the inside.

The hydrant has two upper B outlets (3) An additional A outlet is available upon request for the nominal diameter DN 100 (solid coupling according to DIN 14319).

Linkage, stem and all screws are made of stainless steel. Stem nut, guide piece, support bearing and predetermined breaking coupling are made of brass.

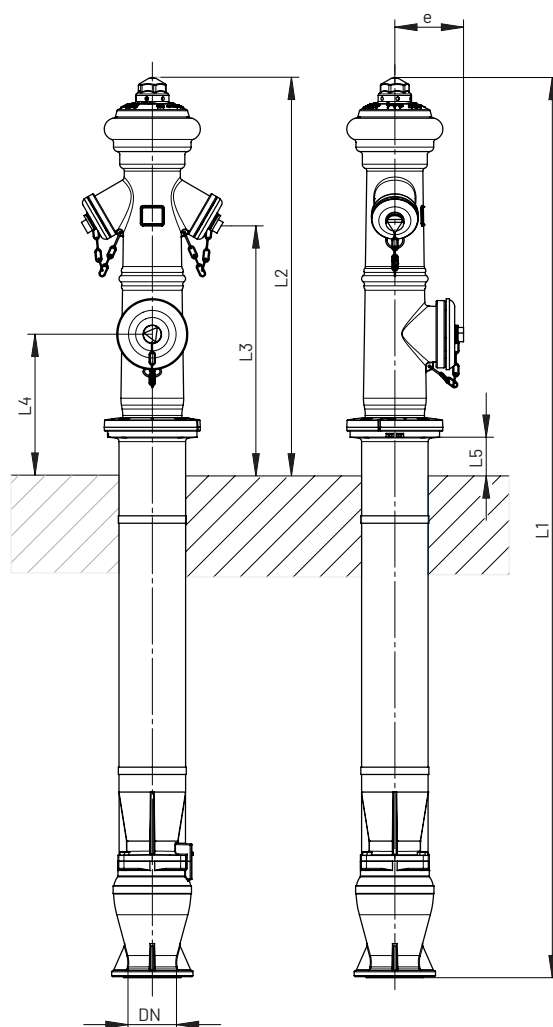
The upper part of the pillar is RAL 3001 powder coated. The lower part of the pillar and the bottom come with a base coat enamel and an additional epoxy resin cover varnish in RAL 3001.

In order to prevent the hydrant from being destroyed by impact such as from a car, the linkage is divided with a brass coupling on the progression to the upper part. This way, only the damaged elements with the predetermined breaking point need to be replaced.

The type 494 pillar hydrant comes with a dual shut-off. An additional obturator ensures sealing when the linkage is replaced under pressure.

Because of the dual shut-off, the pipe does not need to be pressure-free. The safety clasp, however, which protects the maintenance workers, needs to remain in place until the tightness of the dual shut-off can be guaranteed.

The packaging concept, too, is worth mentioning. The polystyrene transportation safety device may be also used as drainage stones.



Dimensions and weights

DN	Pipe covering mm	Height of construction (L ₁) mm	Height (L ₂) mm	Height (L ₃) mm	Height (L ₄) mm	Height (L ₅) mm	e	Weight kg
80	1000	1940	1050	680	–	55	–	125
80	1250	2190	1050	680	–	55	–	136
80	1500	2440	1050	680	–	55	–	147
100	1000	1940	1050	680	355	55	200	129
100	1250	2190	1050	680	355	55	200	140
100	1500	2440	1050	680	355	55	200	151

Pillar Hydrant 495 – with Protective Cover

DN 100 / PN 16 – pipe covering 1.25 m to 1.50 m

Range of application

- for drinking and raw water
- up to 16 bar (test pressure: 24 bar)
- up to 60 °C

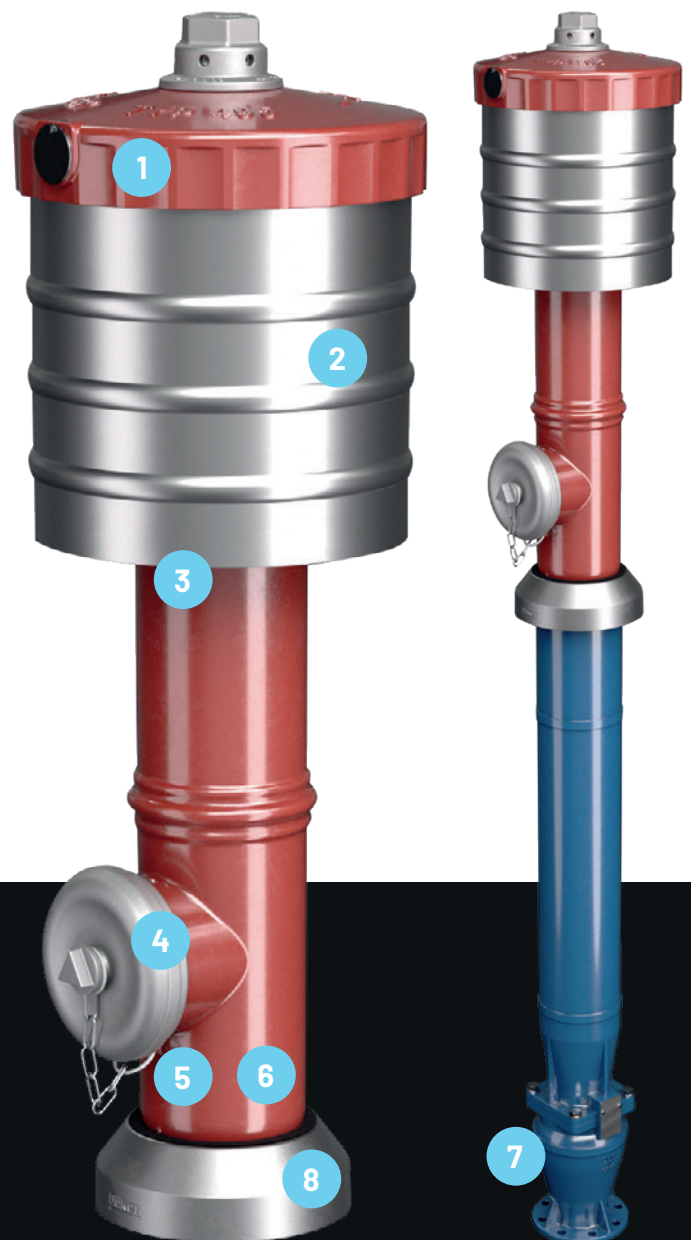
The pillar hydrant type 495 offers both appealing design with its bright red upper part and the stainless steel protective cover, as well as sophisticated functionality.

It is available in the nominal diameter of DN 100 with pipe coverings of 1.25 m and 1.50 m. The flange connection fulfils the requirements of DIN EN 1092-2.

The hydrant corresponds to the standards of pillar hydrants according to DIN 3222, DIN 3321 and EN 14384 as well as the DVGW testing principle VP 325. A DVGW type approval test is also available for this hydrant.

The most important components

- 1 EN-JS 1050 hand wheel
- 2 stainless steel protective cover
- 3 B couplings according to DIN 14318, underneath the protective cover (single control with two valves / safety relief valve)
- 4 A outlet on the lower part
- 5 linkage made entirely of stainless steel, separated by a brass coupling at the progression to the upper part
- 6 brass linkage safeguarding arrangement
- 7 lower part with dual shut-off
- 8 Steplessly rotatable upper section



Technical properties

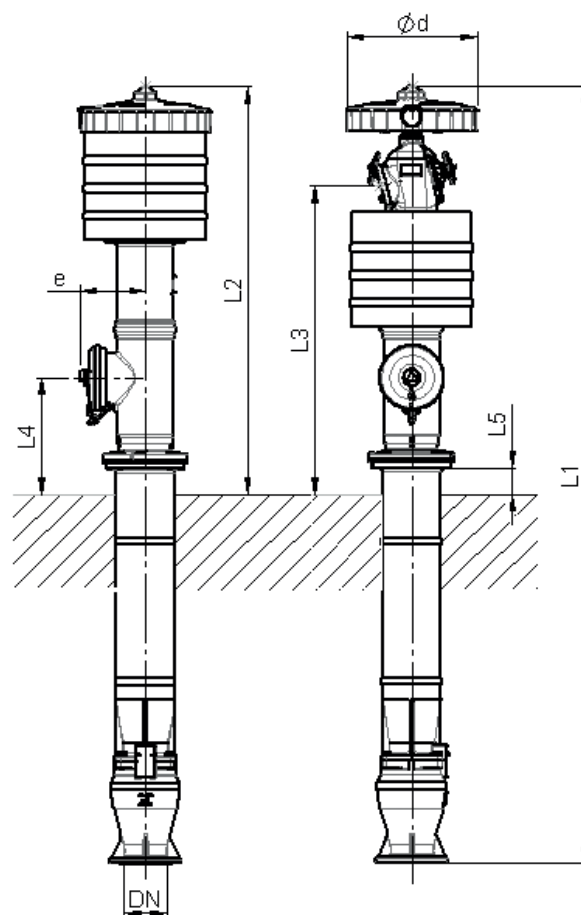
Bottom, upper and lower part of the pillar, valve head and hand wheel are made of cast iron with spheroidal graphite according to EN 1563.

The cast iron body is enamelled on the inside. The upper outside part of the hydrant is protected by a red powder coating in RAL 3001. The lower part and the bottom have a base enamel coating with an epoxy resin varnish in RAL 3001.

The cast iron EN-JS 1050 hand wheel is connected to the solid stainless steel stem extension with a feather key. Underneath the stainless steel protective cover, the two well-protected aluminium B couplings are located in accordance with DN14318. They can be individually controlled with two valves. A safety relief valve prevents the protective cover closing when under pressure.

The type 495 pillar hydrant is equipped with a predetermined breaking point and a dual shut-off. The lower part of the hydrant also features an outlet with an A solid coupling according to DIN 14319 with an outlet cover.

The polystyrene packaging material ensures secure transportation and may additionally be used as drainage stones.



Dimensions and weights

DN	Pipe covering mm	Height of construction (L ₁) mm	Height (L ₂) mm	Height (L ₃) mm	Height (L ₄) mm	Height (L ₅) mm	Ø d	e	Weight kg
100	1250	2390	1250	950	355	55	400	200	185
100	1500	2640	1250	950	355	55	400	200	196

More than 500 Years of Experience in Iron Casting

Our know-how is your advantage

The Düker name has been synonymous for premium quality iron casting for more than 500 years. Today, we are among the leading manufacturers of valves and pressure pipe fittings for drinking water and gas supply, as well as for pipes and fittings for drainage technology.

To be “very good” is setting the standard high. Every day, we are faced with stretching the goal yet a little further. This is why many developments made by Düker are recognized as quality standard among experts today. And we keep on learning and growing.

You benefit from our many years of experience. All of our qualified teams in engineering, sales, production and service are happy to assist you with all questions concerning “drinking water and gas supply”. It starts with the planning, continues with logistics and finally results in installation. On top of that, we also consult with you regarding more complex pipe line projects, given the long service life of our products.

Düker valves are in use all over the world and are subject to very high requirements, especially when it comes to drinking water. This is why all valves are developed and manufactured by applying the greatest possible care and attention to detail. Needless to say, before any product will leave Düker, it will be thoroughly put to the test.

It also goes without saying that our valves are CE tested in accordance with DIN 14339 and 14384 and correspond to the current:

- KTW recommendations
- Guidelines of the Federal Environment Agency for the hygienic evaluation of organic materials that come in contact with drinking water
- Requirements of the DVGW publication W 270 “Microbial enhancement on materials to come into contact with drinking water – Testing and assessment”





Quality at the highest possible level

We are the first ones to set the highest requirements into the quality of our products. It is for that reason that we introduced a modern quality management system according to DIN EN ISO 9001 already in 1993, which has also been TÜV CERT certified.

In addition, Düker products have undergone other tests and approval procedures in line with product or market specific standards or rule sets.

It is not unusual that quality criteria are met within the context of quality assurance associations that are way beyond the standard requirements.



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