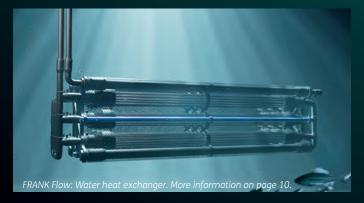




Sustainable pipe system for the energy supply of the future



FRANK WET: Water heat exchanger. More information on page 10.





Complete system for brine local heating networks

In cold local heating networks, thermal energy is obtained at central points and distributed to the households of the adjacent settlement via a pipeline system. Renewable energy sources such as geothermal probes, geothermal collectors, or PKS -THERMPIPE® can be used, which can be combined as desired. We supply all essential components: from geothermal probes to chamber manifolds to the pipeline system.

FRANK WET: Water heat exchanger for lakes and rivers

The FRANK WET enables the generation of sustainable thermal energy from lakes and rivers. Due to its compact design, it is very well suited for lakes and also for lightly flowing water bodies.

FRANK Flow: Water heat exchanger for rivers and streams

The FRANK Flow enables the generation of sustainable thermal energy from rivers and streams. Its open design ensures optimal flow in shallow and fast-flowing water bodies.

PKS-THERMPIPE®: Sewer Pipe System 2.0 with Heat Exchanger Function

PKS-THERMPIPE®

The innovative sewerage system PKS -THERMPIPE® extracts heat energy from wastewater and the ground, directing it through a secondary heating circuit to a heat pump. This allows nearby buildings such as offices, hotels, or entire residential areas to be energetically heated and cooledn.

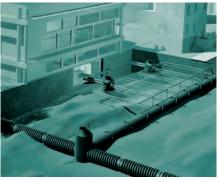
If you require any further information, feel free to contact us!

Different ways of using energy from the ground:

FRANK provides the right solution for every application. Which one is yours?



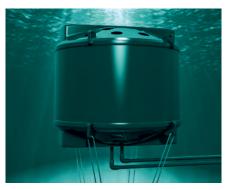
FRANK-GET-system
Premanufactured probes made of
PE 100-RC or PE-X as well as manifold
chambers and manifolds.



PKS®-ThermpipePE sewage pipe for energy extraction from ground and waste water.



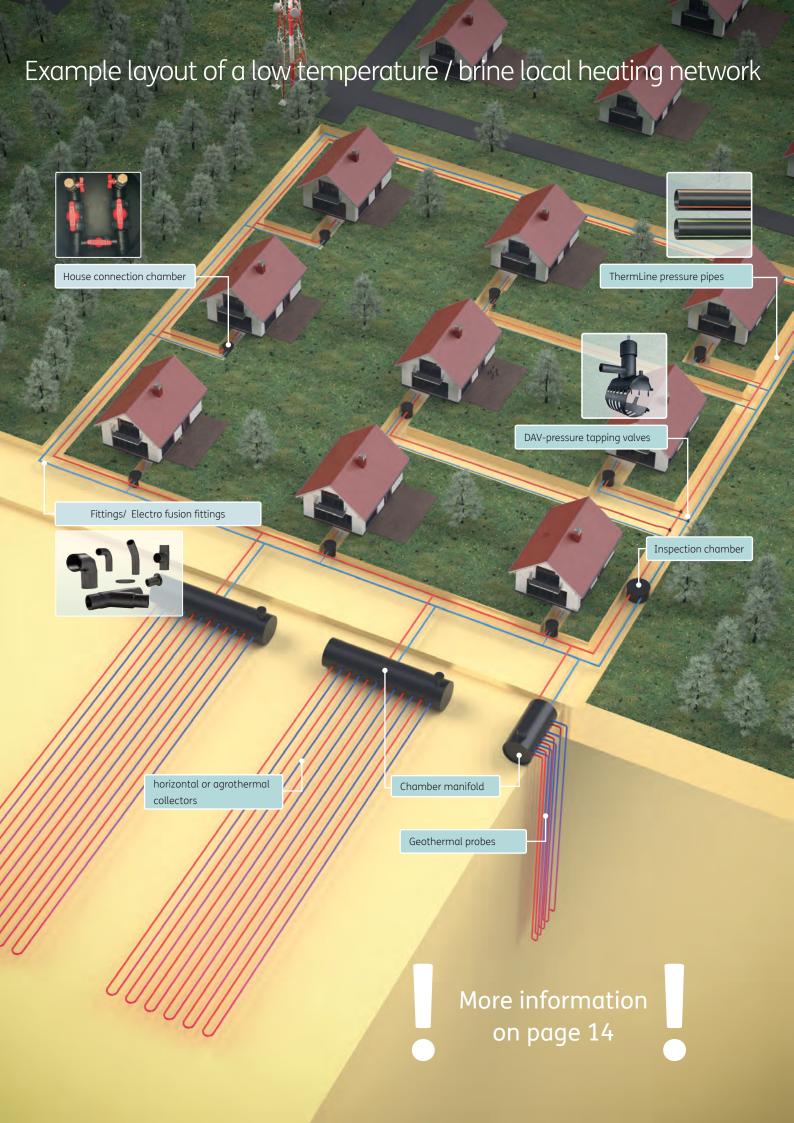
FRANK-VTP® Vertical Thermpipe for using geothermal energy also in case of drilling restrictions.



FRANK WET / heat exchangerPE heat exchanger to extract energy from lakes and rivers.

Feel free to contact us: We are happy to help! Phone +49 6105 4085-0





FRANK Export price list 2024

valid from February 2024

Geothermal system

About the price list

All prices are recommended retail prices, price indication in Euro and without German VAT. All technical data in millimeter.

All information without obligation, technical details are subject to modifications.

Content

Geothermal department	Η
Delivery program	
General terms and conditions	

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Delivery program

	FRANK	GET-System
		Page
	Geothermal probe made of PE 100-F	
	Geothermal probe made of PE-X	es 3
0	Pipe made of PE 1	00-RC4
0_	Pipe made of Sure	PEX5
	Injection pipe	6
	Sealing plug	6
(1) S	Pipe junction made of PE 100-F	3C7
8 B	Pipe junction with E-coupler made of PE 100-RC	7
	Welding holder for junctions	pipe7
	Spacer	8
	Installation tool	8
	Installation tool "he	eavy version"
	Decoiler for geoth probes	ermal 9
Kg	Weight for geothermal probe	·9
ACHTUNG ERG	Warning strap	9
	FRANK VTP® / Vertical Thermpipe	e 10

	FRANK GET-System
	Page
	Horizontal collector system11
CUERO	Heat exchanger for rivers
60	12 Heat exchanger for lakes
	12
	PKS-THERMPIPE®13
	Overview chamber manifold14
D govern	Chamber manifold type WM16
	Chamber manifold L-56017
	Chamber manifold D 40018
	Chamber manifold type L-500 / L-52019
	Chamber manifold type L-54020
	Chamber manifold L-62521
	Chamber manifold type L-750-T22
	Chamber manifold type L-800-T23

Chamber manifold type L-1200-T24 Chamber manifold type V-1200-T / V-1300-T......25 Chamber manifold type H-1400-T / H-1500-T......26

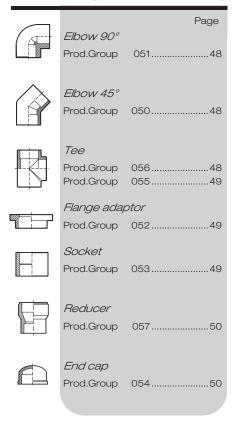
FRANK GET-System

	FRANK	GET-System
	Customized Cham	nber
	manifold	27
	Customized plastic	0
	brine manifold	27
•	components for co	old local
CVEN	heating networks	28

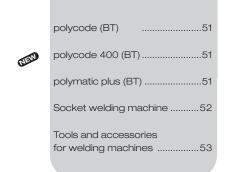


FRANK GET-System Electro fusion fittings Page E-coupler Prod.Group 173.....39 Combination of modular plastic brine manifold types 2061 - 2065 MULTI bend 90°30 Prod.Group 068.....39 Basic packages for manifold types E-elbow 90° 2061 - 2065 Prod.Group 171.....40 Manifold sets type 2061 - 206532 E-elbow 45° Prod.Group Connection parts for 170.....40 manifold types33 E-reducer concentric Prod.Group 177......41 Modular plastic brine manifold type 3060 Prod.Group 176......42 Insulating shell sets type 3060 E-end cap Prod.Group 174......42 E-adaptor socket FRANK GET-System Prod.Group 185.....43 Prod.Group 184......43 FRANK floor and wall duct E-adaptor elbow 90° Prod.Group 186.....44 Prod.Group 187.....44 FRANK floor and wall duct E-adaptor elbow 45° Prod.Group Prod.Group FRANK Ring-Gap-Seal 189.....4537 Adaptors Wall duct Prod.Group 180.....46 Prod.Group 181.....46 Prod.Group 032.....47 FRANK Puddle flange Prod.Group 033......47

Fittings for socket welding



Welding machines and accessories





GTC - General Terms and Conditions of Delivery and Payment

1. General, Conclusion of contract

1.1 The following terms and conditions of delivery and payment shall apply exclusively to all our deliveries and shall only apply to entrepreneurs, legal entities under public law or a special fund under public law. Our terms of delivery and payment shall also apply to all future business relations, even if they are not expressly agreed again. Our terms and conditions shall be deemed accepted upon submission of the order by the customer on the basis of our offer, but no later than 14 days after receipt of the order confirmation without objection.

If our terms and conditions of delivery and payment are opposed to conflicting terms and conditions of the customer, even if they are subsequently included in order confirmations, only our terms and conditions of delivery and payment shall apply even if we do not object to them. We shall only recognise terms and conditions of the customer that conflict with or deviate from our terms and conditions of delivery and payment if we expressly agree to their validity in writing.

- 1.2 Our offers are subject to change. If an order is to be regarded as an offer, we may accept it within 2 weeks. Contracts shall not be concluded until we have confirmed the order in writing. The same applies to subsidiary agreements of any kind. Subsidiary agreements of any kind. Subsidiary agreements shall only be valid if confirmed in writing.
- 1.3 If the customer does not agree with the above handling, he shall immediately within 7 days expressly point this out in a special letter.
- 1.4 In this case, we reserve the right to reject the order of the customer without any claims of any kind being made against us.
- 1.5 We reserve the property rights and copyrights to all documents provided to the customer in connection with the placing of the order, such as calculations, drawings, etc. These documents may not be made accessible to third parties. These documents may not be made accessible to third parties unless we give the customer our express written consent to do so. If we do not accept the orderer's offer within the period of 1.2, these documents shall be returned to us without delay.
- 1.6Written form within the meaning of these GTC includes written and text form (e.g. letter, e-mail, fax).
- 1.7 References to the applicability of statutory provisions shall only have clarifying significance. Therefore, even without such clarification, the statutory provisions shall apply unless they are directly amended or expressly excluded in these GTC.
- 2. Prices and terms of payment
- 2.1 Unless otherwise agreed in writing, our prices shall be ex works (EXW Wölfersheim for extruded PE pipes, coiled pipes and special components/ EXW Mörfelden for the rest of the product range/ in accordance with Incoterms 2000), excluding packaging and plus value added tax at the applicable rate. Costs of packaging, shipping, expenses, customs, taxes, etc. shall be invoiced separately.
- 2.2 Payment shall be made within 30 days of the invoice date.
- 2.3 We grant a 2% discount for payment within 10 days of the invoice date.
- 2.4 The above payment conditions do not apply to repair and rental invoices. These invoices are payable within 10 days of the invoice date without deduction.
- 2.5 If no payment is made within the payment terms, interest on arrears amounting to 9 percentage points above the base interest rate will be charged. We reserve the right to claim higher damages.
- 2.6 We are not obliged to accept cheques and bills of exchange. If they are accepted, they shall only be deemed to be payment upon encashment. Collection and discount charges shall be borne by the buyer.
- 2.7 Acceptance test certificates according to DIN EN 10204-2.2 or 3.1 can be obtained free of charge via our works certificate portal. The manual creation and sending of works certificates is charged at 30 € per order item and the creation of works certificates for special components at cost.
- 2.8 Transfers from SEPA participating countries (currently the EU countries, Iceland, Liechtenstein, Monaco, Norway and Switzerland) must be made as SEPA transfers.

For SWIFT payments, the originator bears the charges (OUR). In addition to the sender's and recipient's details, DZ Bank AG, Frankfurt am Main, Germany, and the BIC code GENO DE FF must be entered as the intermediary bank in field 56a. In both cases, all payments must be made in EURO.

- 2.9 For deliveries within the EU, the customer undertakes to confirm the arrival of the goods against our delivery notes (confirmation of arrival). This can also be done electronically after prior agreement. If the customer does not comply with this obligation before the expiry of 3 months after delivery, we shall be entitled to charge the VAT currently applicable in Germany. It is then the customer's responsibility to have the VAT paid refunded in the course of a VAT refund procedure via his tax authorities.
- 3.Delivery, Delivery Time and Delay in Delivery , Shipment, Transfer of Risk and Default of Acceptance
- 3.1 Stated delivery times are non-binding for us unless they have been expressly guaranteed.
- 3.2 Compliance with the delivery time stated by us shall be subject to the clarification of all technical questions as well as the timely and proper fulfilment of the customer's obligations. We reserve the right to plead non-performance of the contract.

- 3.3 If we are unable to meet binding delivery deadlines for reasons for which we are not responsible (non-availability of the service), we shall inform the Buyer of this without delay and at the same time notify the Buyer of the expected new delivery deadline. If the service is also not available within the new delivery period, we shall be entitled to withdraw from the contract in whole or in part; we shall immediately refund any consideration already paid by the Buyer. Non-availability of the service shall be deemed to exist, for example, in the event of late delivery by our supplier, if we have concluded a congruent hedging transaction, in the event of other disruptions in the supply chain, for example due to force majeure, or if we are not obligated to procure in the individual case.
- 3.4 The occurrence of our delay in delivery shall be determined in accordance with the statutory provisions. In any case, however, a reminder by the buyer is required.
- 3.5 The statutory rights of the Buyer subject to clause 6. of these GTC and our statutory rights, in particular in the event of an exclusion of the obligation to perform (e.g. due to impossibility or unreasonableness of performance and/or subsequent performance), shall remain unaffected.
- 3. 6 If the customer is in default of acceptance, fails to cooperate or if our delivery is delayed for other reasons for which the customer is responsible, we shall be entitled to demand compensation for the resulting damage, including additional expenses (e.g. storage costs).

Should the goods be stored with us beyond the agreed delivery date, we will charge storage costs calculated as follows:

from the 9 th calendar week after the agreed delivery date 0.25% of the value of the goods per calendar week

from the 13 th calendar week after the agreed delivery date 0.75% of the value of the goods per calendar week

However, at most we charge storage costs totalling 10% of the value of the goods.

The proof of higher damages and our statutory claims (in particular compensation for additional expenses, reasonable compensation, termination) shall remain unaffected; however, the lump sum shall be offset against further monetary claims. The purchaser shall be entitled to prove that we have incurred no damage at all or only significantly less damage than the aforementioned lump sum.

If the customer is in default of acceptance or culpably violates other obligations to cooperate, the risk of accidental loss or accidental deterioration of the object of sale shall pass to the customer at the point in time at which the customer is in default of acceptance or debtor's delay.

- 3.7 Shipment is at the risk of the purchaser. Transport and other insurances shall only be effected upon request and shall be borne by the customer. The risk of accidental loss or accidental deterioration of the goods shall pass to the Purchaser upon dispatch to the Purchaser, at the latest upon leaving the factory/warehouse. This shall apply irrespective of whether the goods are dispatched from the place of performance or who bears the freight costs.
- 3. 8 We shall deliver pre-forms (injection moulded, formed from piping, segmented), fittings and pressure-proof puddle flanges (Mauerkragen) upwards of a net value of 2,000.00 EUR free of charge within Germany. We shall deliver PE-piping (extruded, solid walled up to a diameter of 800 mm) upwards of a net value of goods of 7,500.00 EUR free of charge within Germany. Other deliveries shall generally be carried out freight collect, for partly-packed pallets we charge a lump-sum of EUR 55.00 net. For orders less than 250.00 EUR net value of goods, we shall charge 25.00 EUR net mark-up for small-volume purchases.
- 3. 9 When goods are returned to us, said returned goods shall be in their original packaging and in a perfect re-sellable condition, i.e. neither soiled nor scratched and no older than one year. With such returns, we shall charge at least 25% of the value of the goods for restorage and a general processing fee of € 25,-. The return delivery shall be free of charge and subject to coordination of date with us and shall specify our order and invoice number. Pipes and segmented fittings and fittings made of pipe, components in HP/UHP quality, PURAD range, geothermal probes, distribution shafts, special products, goods no longer listed in the current price list and returned goods with a net value of less than EUR 150.00 are generally excluded from return.

4. retention of title

- 4.1 All goods delivered by us shall remain our property until payment of all our claims arising from the business relationship with the customer. This shall also apply if the purchase price has been paid for certain deliveries of goods designated by the customer. In the case of a current account, the reserved property shall be deemed to be security for our balance claims. This shall also apply to all future deliveries, even if we do not always expressly invoke this. In the event of a breach of contract by the customer, in particular in the event of default in payment, we shall be entitled, after setting a reasonable deadline, to take back the delivery item and the customer shall be obliged to surrender it. Our taking back of the delivery item always constitutes a withdrawal from the contract. After taking back the delivery item, we shall be entitled to realise it; the realisation proceeds shall be set off against the liabilities of the customer less reasonable realisation costs.
- 4.2 Processing or transformation shall always be carried out for us as manufacturer, but without any obligation for us. Value-increasing processing and/or treatment of goods subject to retention of title shall not entitle the customer to compensation claims against us.
- 4.3 If the goods subject to retention of title are mixed or combined with other objects so that our ownership expires, it is already agreed now that our ownership of the uniform object shall pass to us in proportion to the value (invoice value). The customer shall keep the (co-) ownership for us free of charge.

If the mixing takes place in such a way that the item of the customer is to be regarded as the main item, it shall be deemed agreed that the customer shall transfer co-ownership to us on a pro rata basis and shall keep the sole ownership or co-ownership thus created in safe custody for us. In order to secure our claim against the customer,



the customer also assigns to us such claims against a third party which accrue to him through the combination of the reserved goods with a property; we accept this assignment already now.

- 4.4 The Customer placing the order shall be entitled to process and sell the goods to which we retain title (conditionally sold goods) in conventional business transactions as long as the Customer is not in default. The Customer shall not be permitted to pledge the goods or transfer title thereto for security. Third party claims of the Customer for the conditionally sold items, based on whatever legal reason whatsoever, are now assigned to us to the extent of the final invoice price agreed upon (including applicable value added tax). In the event of processing, assignment shall be proportional to the amount of the invoice. We accept the assignment. Until further notice, we herewith authorise the Customer placing the order to collect the claims assigned to us for its own account in its own name. Our authority to collect the claims ourselves shall not be affected hereby. We shall, however, not collect the claims as long as the Customer continues to meet his obligations to payment from the collected proceeds and in particular for as long as the Customer has not filed for insolvency proceedings or has ceased payment. At our request, the Customer shall disclose the assignment and the retention of title and provide us with the necessary information and documents. The Customer shall also be bound to do so, without any specific request being made, if a third party for its part renders the assignment of the Customer's claims dependent upon its own approval.
- 4.5 The ordering party is obliged to bring our ownership claim to the attention of any interested third party as long as it legally exists and to notify us immediately in writing, sending a copy of the attachment protocol, if an attachment is to be made by a third party so that we can bring an action in accordance with § 771 of the German Code of Civil Procedure (ZPO). Insofar as the third party is not in a position to reimburse us for the court and out-of-court costs of an action pursuant to § 771 ZPO, the customer shall be liable for the loss.
- 4.6 We undertake to release the securities to which we are entitled at the request of the customer at our discretion to the extent that the realisable value of our securities exceeds the claims to be secured by more than 10%. Notwithstanding the foregoing, the transfer of ownership to the customer shall only take place after final payment of the full value of the goods and any ancillary costs, such as freight and insurance, or, in the case of a bill of exchange credit, after the bill of exchange has been honoured. We do not guarantee that in the event of non-acceptance or non-redemption of the bill of exchange, it will be protested in due time.
- 4.7 We are entitled at any time to disclose the assignment of claims to third parties.
- 4.8 Irrespective of the above assignment of claims (extended reservation of title), the customer pledges to us his claim against third parties in respect of the reserved goods, irrespective of the legal grounds. We accept the pledge. The customer authorises and empowers us to notify third parties of the pledge.
- 5 Warranty and notice of defects
- 5.1 The purchaser's warranty rights presuppose that he has duly fulfilled his obligations to inspect the goods and give notice of defects in accordance with § 377 of the German Commercial Code (HGB). Should complaints arise despite the greatest attention, obvious defects must be asserted immediately, at the latest however within 14 days of receipt of the goods, concealed defects immediately after their discovery, otherwise the goods shall be deemed to have been approved. The date of receipt of the notice of defect by us shall be decisive in this respect.
- 5.2 Claims for defects shall become statute-barred 12 months after delivery of the goods supplied by us to our customer. The above provisions shall not apply insofar as the German Civil Code (BGB) mandatorily prescribes longer periods for buildings and objects for buildings, recourse claims and construction defects. The limitation period in the case of a delivery recourse according to §§ 478, 479 BGB remains unaffected.

Our consent must be obtained before any goods are returned.

- If, despite due diligence, the delivered goods show a defect which was already present at the time of the transfer of risk, we shall, at our discretion, either repair the goods or deliver replacement goods, subject to timely notification of defects. We shall always be given the opportunity to remedy the defect within a reasonable period of time.
- 5.3 If the subsequent performance fails, the customer may without prejudice to any claims for damages withdraw from the contract or reduce the remuneration. The customer cannot demand compensation for futile expenses.
- 5.4 Claims for defects shall not exist in the case of only insignificant deviations from the agreed quality, in the case of only insignificant impairment of usability, in the case of natural wear and tear and in the case of damage arising after the transfer of risk as a result of incorrect or negligent handling, excessive strain, unsuitable operating materials, defective construction work, unsuitable building ground or due to special external influences which are not assumed under the contract. If improper repair work or modifications are carried out by the customer or third parties, there shall also be no claims for defects for these and the resulting consequences.
- 5.5 Claims by the customer for expenses incurred for the purpose of subsequent performance, in particular transport, travel, labour and material costs, shall be excluded insofar as the expenses increase because the goods delivered by us have subsequently been taken to a place other than the customer's place of business, unless the transfer is in accordance with their intended use.
- 5.6 The purchaser's right of recourse against us shall only exist to the extent that the purchaser has not entered into any agreements with its customer that go beyond the statutory mandatory claims for defects. Furthermore, clause 5.5 shall apply accordingly to the scope of the purchaser's right of recourse against the supplier.
- 5.7 Further or other claims of the customer against us and our vicarious agents due to a defect than those regulated here in clause 5. are excluded.
- 5.8 In the event of fraudulent concealment of a defect or in the event of the assumption of a guarantee for the quality of the goods at the time of the transfer of risk (declaration by the seller that the object of purchase has a certain quality at the time of the transfer of risk and that the seller intends to be responsible for all consequences of its absence irrespective of fault), the rights of the purchaser shall be governed exclusively by the statutory provisions.

6 Limitation of liability

- 6.1 We shall only be liable for damages on whatever legal grounds a) in the event of intent, b) in the event of gross negligence, c) in the event of culpable injury to life, limb or health, d) in the event of defects which we have fraudulently concealed or the absence of which we have guaranteed, e) in accordance with the mandatory rules of oroduct liability.
- 6.2 In the event of culpable breach of material contractual obligations, we shall also be liable in the event of slight negligence, but limited to the reasonably foreseeable damage typical for the contract.
- 6.3 Further claims are excluded.
- 7 Right of retention and right of set-off

The customer shall only have the right of set-off if his counterclaims have been legally established, are undisputed or have been recognised by us. The customer is only entitled to exercise a right of retention insofar as his counterclaim is based on the same contractual relationship.

- 8. final provisions
- 8.1 This contract and the entire legal relationship between the parties shall be governed by the laws of the Federal Republic of Germany to the exclusion of the UN Convention on Contracts for the International Sale of Goods (CISG).
- 8.2 Should individual provisions of these Terms and Conditions of Delivery and Payment be or become invalid or contain a loophole, the remaining provisions shall remain unaffected.
- 8.3 Place of performance is Mörfelden-Walldorf.
- 8.4 The exclusive place of jurisdiction for all disputes arising from this contract is Darmstadt/Germany.

Status: January 2024, FRANK GmbH, Mörfelden-Walldorf





CADENAS - Configuration and drawings of FRANK chamber manifolds

Create the desired chamber manifold CAD model of the FRANK chamber manifolds.

Without much effort or extra software, you can browser to create the chamber manifold in the required configuration and the required CAD format.

You also have the option of downloading the configuration as a data sheet for your documentation or to send it to us as a request for quotation.

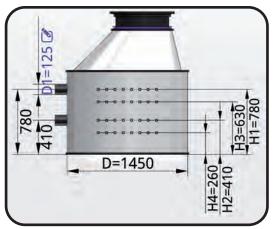
- Individual models and drawings in 2D or 3D
- Wide range of CAD formats to choose from
- Configurable connection dimensions and chamber height
- Configurable chamber equipment (according to FRANK standard)
- Matching product information and tender text



Example: Cut-out configuration (L-520)



Example: 3D isometric view (H-1400-T)



Example: 3D front view with dimensioning (H-1400-T)

Click here for the configuration: FRANK-VTS CAD





Geothermal probes made of PE 100-RC



- Completely pre-assembled duplex probe acc. to VDI 4640
- PE 100-RC pipes are approved acc. to PAS 1075 for installation without sand embedding
- High resistance against external point load and stress cracking
- Pipes made of PE 100-RC can be installed and welded like PE 100
- Production is monitored according to the guidelines of SKZ Würzburg
- Pipes marked as geothermal probe
- Ascending length marking, point zero at probe foot
- Injection moulded, separable probe foot
- Installation with spacers is recommended
- Probe certificate online available
- Installation instructions can be downloaded from our website









SDR 9	SDR 11

Dimension (mm)	Length of probe	Description
32 x 3,0	50 m	
32 x 3,0	60 m	
32 x 3,0	70 m	
32 x 3,0	80 m	
32 x 3,0	90 m	
32 x 3,0	100 m	
32 x 3,0	110 m	
32 x 3,0	120 m	
32 x 3,0	130 m	
32 x 3,0	140 m	
32 x 3,0	150 m	
40 x 3,7	50 m	
40 x 3,7	60 m	
40 x 3,7	70 m	
40 x 3,7	80 m	
40 x 3,7	90 m	
40 x 3,7	100 m	
40 x 3,7	110 m	
40 x 3,7	120 m	
40 x 3,7	130 m	
40 x 3,7	140 m	
40 x 3,7	150 m	
40 x 3,7	160 m	
40 x 3,7	170 m	
40 x 3,7	180 m	
40 x 3,7/ 4,5	200 m	
40 x 3,7/ 4,5	220 m	
40 x 3,7/ 4,5	250 m	
40 x 3,7/ 4,5	275 m	
40 x 3,7/ 4,5	300 m)

Item no. 400	€/piece	Item no. 400	€/piece
		32 2050	669,30
		32 2060	757,45
		32 2070	851,45
		32 2080	942,45
		32 2090	1.032,10
		32 2100	1.124,65
		32 2110	1.217,05
		32 2120	1.308,15
		32 2130	1.400,65
		32 2140	1.491,65
		32 2150	1.584,20
		40 2050	967,10
		40 2060	1.111,60
		40 2070	1.264,75
		40 2080	1.471,50
		40 2090	1.624,65
		40 2100	1.691,10
		40 2110	1.837,20
		40 2120	1.984,60
		40 2130	2.131,95
		40 2140	2.278,05
		40 2150	2.422,55
		40 2160	2.570,00
		40 2170	2.715,95
		40 2180	2.863,35
40 1200	3.652,55	40 2200	3.153,90
40 1220	3.992,15	40 2220	3.432,80
40 1250	4.499,50	40 2250	3.885,25
40 1275	4.923,00	40 2275	4.223,40
40 1300	5.346,55	40 2300	4.584,75

Other lengths available on request. For lengths below 50 m coil dimensions may differ.



FRANK GET-X geothermal probes made of PE-X



- Factory-welded duplex probe
- d 32 mm and d 40 mm
- FRANK SurePEX pipes made of crosslinked polyethylene (PE-Xa)
- Injection moulded, separable PE-X probe foot
- Best FNCT resistance
- Good flexibility easy installation also at low temperatures
- Good thermic stability
- Universal connection method via electro fusion welding or clamping
- Ascending length marking, point zero at probe foot
- Working temperature -20°C up to +95°C
- Individual test certificate for each probe, online available



Dimension	Length	
(mm)	of probe	Description
32 x 2,9	50 m	
32 x 2,9	60 m	
32 x 2,9	70 m	
32 x 2,9	80 m	
32 x 2,9	90 m	
32 x 2,9	100 m	
32 x 2,9	110 m	
32 x 2,9	120 m	
32 x 2,9	130 m	
32 x 2,9	140 m	
32 x 2,9	150 m	
40 x 3,7	50 m	
40 x 3,7	60 m	
40 x 3,7	70 m	
40 x 3,7	80 m	
40 x 3,7	90 m	
40 x 3,7	100 m	
40 x 3,7	110 m	
40 x 3,7	120 m	
40 x 3,7	130 m	
40 x 3,7	140 m	
40 x 3,7	150 m	
40 x 3,7	160 m	
40 x 3,7	170 m	
40 x 3,7	180 m	
40 x 3,7	200 m	
40 x 3,7	220 m	
40 x 3,7	250 m	
40 x 3,7	275 m	
40 x 3,7	300 m	

Other lengths available on request. F	For lengths below 50 m coil may differ.
---------------------------------------	---

Item no. 430	€/piece
32 0050	1.212,30
32 0060	1.354,40
32 0070	1.525,05
32 0080	1.690,80
32 0090	1.850,20
32 0100	2.008,45
32 0110	2.167,90
32 0120	2.327,40
32 0130	2.485,60
32 0140	2.645,05
32 0150	2.803,25
40 0050	1.764,25
40 0060	2.024,60
40 0070	2.285,05
40 0080	2.545,40
40 0090	2.804,55
40 0100	3.064,95
40 0110	3.327,80
40 0120	3.588,20
40 0130	3.848,60
40 0140	4.109,00
40 0150	4.369,40
40 0160	4.629,75
40 0170	4.890,15
40 0180	5.150,55
40 0200	5.672,60
40 0220	6.193,40
40 0250	6.974,55
40 0275	7.624,85
40 0300	8.275,30

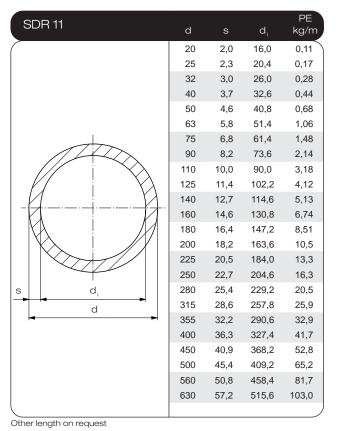


Pipe

made of PE 100-RC, acc. to DIN 8074/75in standard length dimension-dependent of 5 m, and 6 m (above d 1600 mm = 5.8 m).

Article group PE 100-RC Black

21 766...



DIBt für PE 100 und PE 100-RC bis d 630 Schwarz

₹M> erhältlich für PE 100 und PE 100-RC Schwarz d 63 - d 630 auf Anfrage

erhältlich für PE 100 und PE 100-RC bis d 500 auf Anfrage

PE 100-F	RC		€/m
020 011	5	(1,20
025 011	5		1,75
032 011	6		2,85
040 011	6		4,35
050 011	6		6,75
063 011	6		10,60
075 011	6		14,80
090 011	6		21,40
110 011	6		31,80
125 011	6		41,20
140 011	6		51,30
160 011	6		67,40
180 011	6		85,10
200 011	6		105,00
225 011	6		133,00
250 011	6		163,00
280 011	6		205,00
315 011	6		259,00
355 011	6		329,00
400 011	6		417,00
450 011	6		528,00
500 011	6		652,00
560 011	6		817,00
630 011	6		1.030,00
	D	(
Discount group dinnension-dependent			

60

5 = 5 m Rod

6 = 6 m Rod7 = 12 m Rod

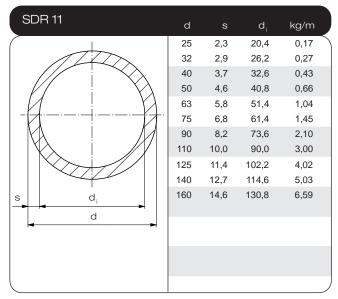


SurePEX pipe

peroxide cross-linked polyethylene (PE-Xa), according to DIN 16892 and 16893, optimally suitable for house connection pipes, in standard lengths of 6 m and 12 m, as ring coil in 50 m and 100 m length







Other length and dimension on request SDR 7,4 on request 1) only drinking water pipes are supplied in 10 m lengths 2) only gas pipes are supplied in 12 m lengths

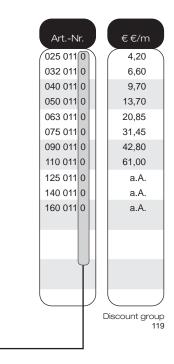
Article group:

for drinking warter: SurePEX blue colored

43 706...

for gas: SurePEX yellow colored

43 709...



0 = 50 m ring coil

1 = 100 m ring coil

6 = 6 m rod

 $4^{1)} = 10 \text{ m rod}$





Injection pipe for Geothermal probes



- Extruded pipe made of PE-HD,
- Pipe labeled as injection pipe
- Length marking in ascending order
- Coils with the same inner diameter as FRANK Geothermal probes
- Short-term up to 20 bar (at 20°C), not for permanent Suitable for printing applications
- Available in the dimensions d 25, d 32

Pipe- dimension	Length	Description
25 x 2,3	62 m	
25 x 2,3	82 m	
25 x 2,3	102 m	
25 x 2,3	122 m	
25 x 2,3	142 m	
25 x 2,3	162 m	
32 x 3,0	52 m	
32 x 3,0	62 m	
32 x 3,0	72 m	
32 x 3,0	82 m	
32 x 3,0	92 m	
32 x 3,0	102 m	
32 x 3,0	112 m	
32 x 3,0	122 m	
32 x 3,0	132 m	
32 x 3,0	142 m	
32 x 3,0	152 m	

other length and dimension on request

Item no. 2076 00	€/m
2070 00	6/111
25 011062	1,45
25 011082	1,45
25 011102	1,45
25 011122	1,45
25 011142	1,45
25 011162	1,45
32 011052	2,25
32 011062	2,25
32 011072	2,25
32 011082	2,25
32 011092	2,25
32 011102	2,25
32 011112	2,25
32 011122	2,25
32 011132	2,25
32 011142	2,25
32 011152	2,25

Discount group object-related



Geothermal pipe - Sealing plug

- For safe closing of the Geothermal probe after the flow/pressure test or grouting
- tamper-proof lock
- no special tools required
- not suitable for pressure applications
- Material: PE

for pipe d[mm]	
32 x 3,0	
40 x 3,7	
40 x 4,5	
)



Discount group 117



Accessories for geothermal probes



Pipe junction

- To connect a duplex probe to the heat pump
- In probe fields, the individual probes can be combined in a way that the entire system can be closed with a single shut-off valve
- Flow-optimised geometry without cross section reduction
- Production monitoring according to the guidelines of SKZ Würzburg
- Material: PE 100-RC

Dimension (mm)	Length (mm)
25 x 25 x 32	ca. 150
32 x 32 x 40	ca. 170
40 x 40 x 50	ca. 200
)



Discount group 117



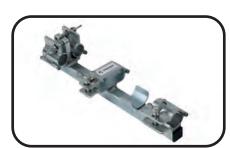
Pipe junction with E-couplers

- To connect a duplex probe to the heat pump
- In probe fields, the individual probes can be combined in a way that the entire system can be closed with a single shut-off-valve
- Flow optimised geometry without cross section reduction
- Production monitoring according to the guidelines of SKZ Würzburg
- Material: PE 100-RC
- E-couplers separable if required

Dimension (mm)	Length (mm)	E-coupler (pieces)
25 x 25 x 32	ca. 191	2
25 x 25 x 32	ca. 236	3
32 x 32 x 40	ca. 215	2
32 x 32 x 40	ca. 265	3
40 x 40 x 50	ca. 250	2
40 x 40 x 50	ca. 300	3



Discount group 117



Fixation bar for pipe junctions

- Robust fixation bar for pipe junctions 32-32-40 or 40-40-50
- Facilitates stress-free welding as per DVS guidelines
- Safe fixation of pipes and junctions
- Quick fixing with clamp and wing nut

For dimension	Length [mm]
32-32-40	450
40-40-50	490
	,





Discount group 117

Accessories for geothermal probes



Spacer for probe pipe

- For fixing the probe pipe
- Prevents the pipes from touching each other
- Central opening suitable for injection pipe
- Material: PE

Dimension (mm)	Central opening (mm)
32	ca. 45
40	ca. 50



Discount group 117



Insertion and installation aid for probes

- Robust installation aid for probes d 32 and d 40 mm
- With suspension lug for attaching weights to the probe foot
- Centre sleeve and stop for thrust rod 3/4"
- Either pendular or fixed connection
- Material: steel

Description	Length (mm)
For probes made of PE 100-RC	ca. 215
For GET-X probes	ca. 235



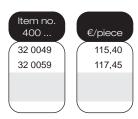
Discount group 117



Insertion and installation aid "heavy version" for probes PE-100-RC

- Insertion aid in reinforced design for geothermal probes d 32 and d 40
- $\hfill \blacksquare$ with holes for attaching weights to the probe base
- Centring sleeve and stop for push rods 3/4"
- Fixing of weights pendulum or rigid possible
- Material: steel

Description	Length [mm]
for probe d32	ca. 355
for probe d40	ca. 355



Discount group 117



Accessories for geothermal probes



Decoiler

- To roll-up FRANK probes d 32 and d 40, from 50 m up to 300 m
- Galvanized steel
- Base frame with 2 lifting eyes
- Core diameter variable from 680 1000 mm
- Wheel diameter 1800 mm
- Variable width from 700 1700 mm
- Total width 2000 mm
- Weight 75 kg





Discount group 124



Weight for geothermal probes

- To prevent the probe from floating
- With threaded connection (M8 allen screw) to attach the installation aid
- Either pendular or fixed connection
- Material: steel

Dimension OD x Length (mm)	Weight (kg)	No. of weights per pallet (pieces)
Prices for acceptance of complete pallets		
80 x 680	approx. 25,0	40
80 x 1040	approx. 40,0	25
)







Discount Group 117



Barrier tape

- Green barrier tape with 'Achtung Erdwärmeleitung' + FRANK-Logo
- Material PEw, resistant to ageing and frost, permanently readable
- Dimensions: thickness 0,15mm, width 40mm, length 250m
- Prevents from cost intensive damage of connecting pipes
- Facilitates locating connecting pipes and tubes
- Identification of the pipes to be protected
- Intensive warning characteristic







FRANK VTP® / Vertical Thermpipe



- The energetic solution for limited drilling depth
- Ideally applicable at high groundwater level
- High efficiency of extraction in areas of high ground water table
- Easy to insert by using hollow stem auger or conventional drilling auger with a protection pipe
- Complete pre-assembled element, insertion without any additional preparation
- Low drilling diameter
- Fixed pipe distance of support pipe
- Internal outlet flow
- Safe pipe connection by welded joint
- Pressure proofed with certificate
- Fitting length 6 m and 12 m, other length on demand
- can be used as spring
- Optional use for infiltration of rainwater
- Calculation tool see www.frank-gmbh.de



Insertion of VTP® in the borehole with hollow steam

Туре	Outside diameter (mm)	Installation lenght [m]	Media pipe d [mm]
VTP 260	260	6	25
VTP 260	260	9	25
VTP 260	260	12	25
VTP 360	360	6	32
VTP 360	360	9	32
VTP 360	360	12	32

Item no. 400	€/piece
200256	779,65
200259	890,70
200257	967,05
280326	955,50
280329	1.186,85
280327	1.314,05

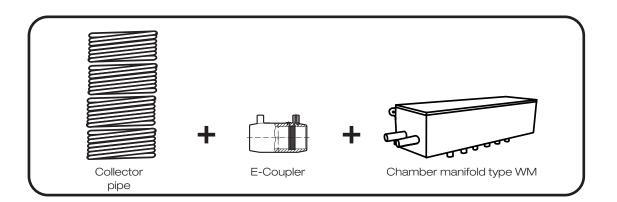


Horizontal collector system



- Complete set with prefabricated Chamber manifold, collector pipe and connection fittings
- Easy connection of collector circuit with electro fusion couplers
- Space-saving Chamber manifold for wall mounting
- Lockable cover plate with sealing
- Complete preassembled manifold with shut-off valves and flow meters
- Flow and return with fill- and drain valves
- Safe connection of collector circuits by welding with electro fusion fittings
- Calculation tool see www.frank-gmbh.de

Additional accessory for wall penetration available: Ring-Seal or FRANK puddle flange



Set no.:	No. of circuits (coils) pc.	Length collector pipe per coil [m]	Media pipe d [mm]	Heat pump connection d [mm]
1	3	100	32	40
2	4	100	32	40
3	5	100	32	40
4	6	100	32	40
5	7	100	32	40
6	8	100	32	40

Item no. 402	€/piece
3285 307	1.432,90
3285 407	1.715,70
3285 507	1.975,15
3285 607	2.270,85
3285 707	2.566,55
3285 807	2.864,55

Discount group 118



FRANK WET / Water heat exchanger



- For extracting energy from lakes and rivers
- For heating and cooling
- Different performance levels
- Compact heat exchanger with high degree of efficiency
- Fully made of PE material
- No metallic components no corrosion
- No movable parts no wear
- Solid protective casing with fixing point for anchoring
- Easy installation and handling because of low weight
- Safe connection with e-couplers

For higher performance several units can be connected in parallel

Description	Energy approx ¹⁾ [kW]	Dimension Ø x h [mm]	Connection [mm]	Direction spigot
FRANK WET Type 1	3-6	1220 x 600	DE 100 opiget d 40 mm	up
FRAINT WET Type I	3-0	1220 X 600	PE 100 spigot d 40 mm	down
EDANK WET Tune 2	7-10	1220 x 900	DE 100 eniget d 10 mm	up
FRANK WET Type 2	7-10	1220 X 900	PE 100 spigot d 40 mm	down
ED ANIX WET To a 2	44.40	4000 4000	DE 400	up
FRANK WET Type 3	11-13	1220 x 1200	PE 100 spigot d 40 mm	down

Item no. 400	€/piece
1010 11	6.135,65
1010 21	6.135,65
1010 12	9.089,80
1010 22	9089,80
1010 13	11.930,40
1010 23	11.930,40
	Discount group

FRANK FLOW / Water heat exchanger for flowing water





- Compact water heat exchanger for generating energy from rivers and streams
- for heating and cooling buildings
- high efficiency
- komplett aus Werkstoff PE
- no metallic components no corrosion
- no moving parts no wear
- Sturdy protective housing with fixing points for anchoring
- easy installation and handling due to low weight
- secure connection with welded joints

If more power is required, several units can be connected in parallel.

Description	Energy approx ¹⁾	Dimension Øxh	Connection	Direction
	[kW]	[mm]	[mm]	spigot
FRANK FLOW	3-6	2100 x 595 x 725	PE 100 spigot d 40 mm	up







¹⁾ Possible extraction capacity depending on water temperature

¹⁾ Possible extraction capacity depending on water temperature

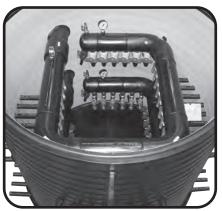
PKS®-Thermpipe: Thermal energy from the ground and sewage



- Making use of the energy taken from waste water and the surrounding ground
- Constant performance as energy extraction does not depend on sewage flow
- Reliable solution based on FRANK PKS®-spiral pipe technology
- Smooth inner surface, no built-in components necessary
- Easy collection to FRANK Chamber manifolds
- Welding connection of Thermpipe with electro fusion socket or extrusion weld and stub end
- Individual thermal and static design as per project requirements



Parallel installation of connection pipe close to Chamber manifold



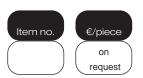
Manifold chamber to connect the brine circuits

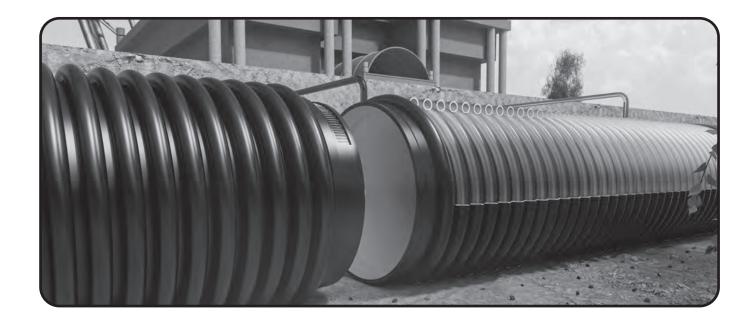


Easy connection of connection pipe via electro fusion coupler

	escription	Pipe dimension [mm]	Length [m]	
PKS	®-Thermpipe	DN 500 to DN 1600*	3 to 6 m	

*other pipe dimensions on request







The FRANK system for low temperature / brine local heating network

Geothermal Probes | Collectors | Chamber manifolds | Pipes | Fittings |



When heating individual buildings, each heat pump has its own heat source. The economic solution of using heat pumps in local heating networks to supply entire neighbourhoods and settlements with energy is increasingly gaining more extraction. In this case, the energy generated from one or more sources is distributed to the surrounding buildings in a heating network. In this way, geothermal energy can be used even in densely built-up settlements, for example, without having to develop a heat source on each individual property.

In a classic local heating network, heat is generated by a central heat pump. The heat is then distributed to the individual buildings at a high temperature level. On the other hand, in a cold local heating network, the geothermal heat is distributed throughout the entire network at a low temperature level and is only brought to the required heating temperature in the buildings by a heat pump.

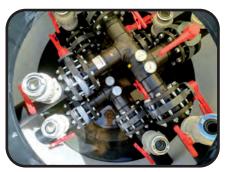
The low temperatures in the network prevent heat loss. The piping of the network even contributes significantly to the heat again. Another advantage is the possibility to cool buildings ecologically in summer.

FRANK components for cold local heating networks are adapted to the specific requirements of modern networks:

- Geothermal probes and collectors for supplying entire construction areas with sustainable thermal energy,
- Factory-made chamber manifolds for connecting probe fields and agrothermic collectors,
- The suitable chamber for every section of the network,
- Pressure tapping valves for connecting the ring mains to the buildings, PE brine manifolds for pumping stations and heating centres,
- ThermLine pipes for ring and house connection lines,
- Comprehensive range of electrofusion and connection parts for the individual implementation of your building project.



Superior main chamber manifold



Inspection chambers

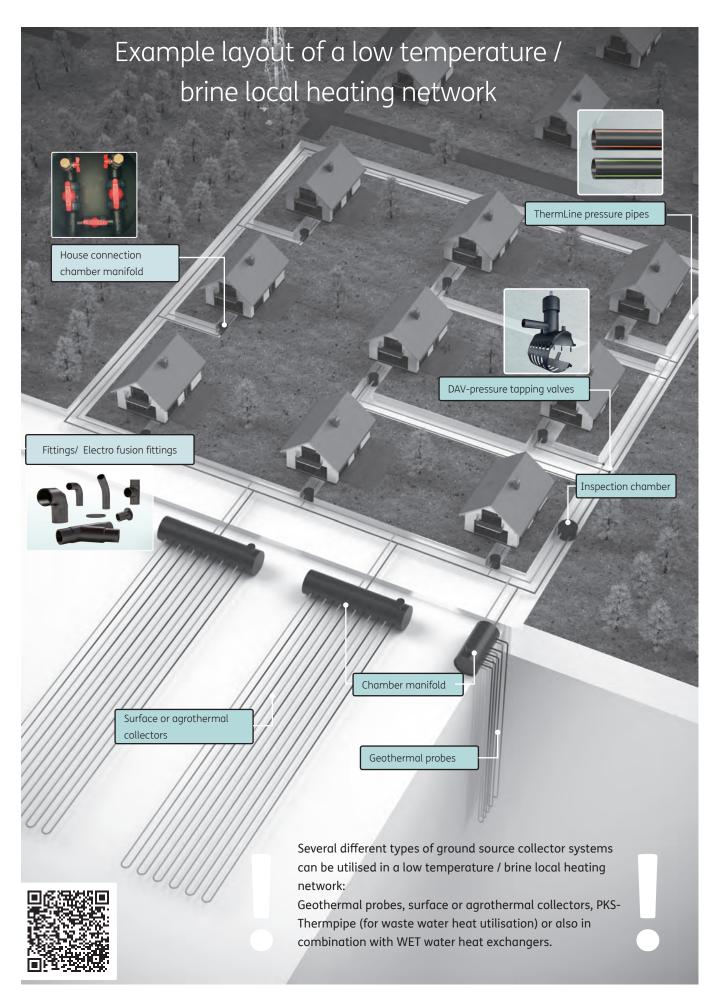


Chamber manifold with microbubble separator

Description	Dimensions [mm]
Inspection chamber	Pipe d90 - d250
Vent chamber	Pipe d90 - d250
House connection chamber	Pipe d40 - d90
Geothermal probe chamber manifold	10 - 200 Circuits
Agrothermal chamber manifold	6-40 Circuits









Overview chamber manifolds

	Series	Wall m	ounting	Series 400	Series 500
Design Type V Design Type L		12 Parties	G FILAM	7 FRANK	G FRANK
Туре		WM	L-560	R-400 S-400	L-500 L-520
	Circuits	2-8	2-6	2-6	2-12 / 2-8
Dimensions	Diameter / L x W	600-1200 x 230	500-750 x 360	400	500 x 500 / 650
(mm)	Height	275	500	650	650
Course plate	Load class	-	-	A 15	A 15
Cover plate	Telescopic cover	-	-	0	0
Optional	balancing valve	-	-	-	0

Series		Telescopic Chamber manifolds				
Design Type V Design Type H			O TRANS		O PRAISE.	
Туре		L-1200-T L-1400-T	V-1200-T V-1300-T	H-1400-T	H-1500-T	
	Circuits	2-16/ 2-20	2-24	11-32	33-40	
Dimensions	Diameter	1150/ 1400	1150	1400	1500	
(mm)	Height (depending on number of circles)	1350 - 1500/ 1600 - 1750	1350 -1600	1600-1750	1700 - 1850	
Cover plate	Load class	A 35 / B 125 / D 400	A 35 / B 125 / D 400	A 35 / B 125 / D 400	A 35 / B 125 / D 400	
cover plate	Telescopic cover	•	•	•	•	
Optional balancing valve		0	o up to 16 circuits	0	0	
	ble static calculation to SLW 60)	-	-	-	-	

• = Standard \circ = Optional

Please refer to our Product Information of the relevant chamber manifold for further details on configuration and dimension.



Series 500	Series 600	Telescopic compact cl	hambers manifolds
G FRANK	S PEAN!		200000
L-540	L-625	L-750-T	L-800-T
2-6	2-4	2-10	4-12
500 x 500 / 650	625	750	738x803/873
650	835	850-1000	850-1000
A 15	200 kg	A 35 / B 125 / D 400	A 35 / B 125 / D 400
0	-	•	•
0	-	0	0

Heavy-Duty Spiral-Pipe Chambers Horizontal spiral pipe chamber manifold HL-.....-WR L-1200-WR H-1500-WR H-1800-WR 12-40 2-16 41-52 4-200 1200 1500 1800 1800 - 2200 1850 2160 2000 - 2800 1860 A 35 / B 125 / D 400 D 400 D 400 D400 0 0 0 0

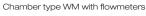


Chamber manifolds type WM (wall mounting)



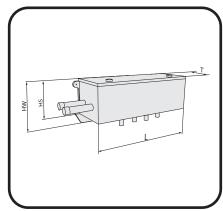
- Compact chamber for probes, horizontal or basket collectors
- Space saving wall mounting
- Chamber completely made of PE
- Heatpump connection with spigots d40
- Spigots to circuits through chamber's bottom, welded
- Shut-off valves in flow and return
- Flow meter with regulating valve in flow
- Collector pipe with ½" fill and drain valve
- Hinged and lockable cover with sealing
- Pressure tested manifold
- Max. flow rate 7,7 m³/h







Chamber type WM with shut-off valve



Compact water tight Chamber manifold

Circuits	Pipe diameter [mm]	Flow meter	Length L [mm]	Depth T [mm]	Height Chamber HS / wall plate HW [mm]
2	32	4-20 l/min	591	270	230 / 295
3	32	4-20 l/min	692	270	230 / 295
4	32	4-20 l/min	793	270	230 / 295
5	32	4-20 l/min	894	270	230 / 295
6	32	4-20 l/min	995	270	230 / 295
2	32	7-32 l/min	591	270	230 / 295
3	32	7-32 l/min	692	270	230 / 295
4	32	7-32 l/min	793	270	230 / 295
5	32	7-32 l/min	894	270	230 / 295

Item no. 400	€/piece
32 85207	751,50
32 85307	831,05
32 85407	939,75
32 85507	1.019,20
32 85607	1.126,75
32 84207	751,50
32 84307	831,05
32 84407	939,75
32 84507	1.019,20



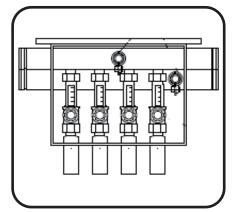
Chamber manifolds type Typ L-560



- Space-saving, compact chamber manifold for wall mounting,
- with horizontal distributor/collector,
- Heat pump connection d 75 mm, on both sides
- flow with PVC ball valve,
- return with flow meter 5-42 l/min, adjustable and lockable,
- manifold with 1" filling and venting valve,
- Radially removable valves,
- all pipe connections welded to the chamber wall,
- Manifold with pressure test certificate,
- Plastic manhole cover, watertight, lockable.

For installation with standing water and for higher static loads, a separate design is required.





Type L-560

Type L-560

Circuits	Pipe diameter* [mm]	Heat pump connection* [mm]	Length [mm]	Width [mm]	Height [mm]
2	d 40	d 75	500	360	540
3	d 40	d 75	500	360	540
4	d 40	d 75	650	360	540
5	d 40	d 75	650	360	540
6	d 40	d 75	750	360	540

^{*} other diameters on request

ItemNo. 400408	€/piece
02057 311	1.191,35
03057 311	1.398,45
04057 311	1.603,40
05057 311	1.848,95
06057 311	2.056,05
)iscound aroun



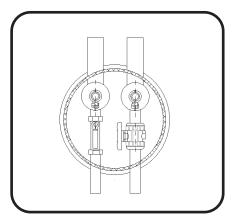
Chamber manifolds D 400



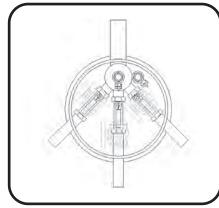
Discontinued item

- Factory pre-assembled Chamber manifold with integrated manifold
- To connect geothermal probes, collectors and energy baskets
- Chamber diameter only 400 mm
- PE cover plate lockable, surface waterproof
- Chamber and cover plate pedestrian loads only up to 200 kg
- Manifold/collector d 110, vertical design
- Heat pump connection d 40 mm
- Flow with PVC ball valve
- Return with flow meter 5-42 l/min.
- Radially removable valves
- All pipe connections are welded to Chamber manifold
- Collector pipe with 1" fill and drain valve
- All pipe connections are welded to Chamber manifold
- Pressure tested

For special versions of high ground water levels or static load a separate calculation is required.







Type R 400: 2-4 Circuits

Type R 400: 2-4 circuits

Type S 400: 5-6 circuits

Circuits	Type	Probe connection [mm]	Chamber mani- fold height [mm]	Heat pump connection [mm]	Diameter [mm]
2	R-400	d 40	650	d 63	400
3	R-400	d 40	650	d 63	400
4	R-400	d 40	650	d 63	400
5	S-400	d 40	650	d 63	400
6	S-400	d 40	650	d 63	400

Item no.: 400408	€/piece
02046 311	939,40
03046 311	1.116,65
04046 311	1.289,55
05046 311	1.481,70
06046 311	1.654,65
	Discount group

Discount group



Option

Height-adjustable telescopic riser for HDPE Chamber manifolds covers class A15 as per DIN EN 124 / DIN 1229.

- For chambers manifolds type 500, 520, 540 and type D 400
- Easy adjusting of height
- Tight sealing with O-ring
- Suitable for retrofitting

Min. height Riser [mm]	variable height [mm]
300	150





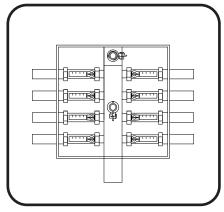


Chamber manifolds type L-500 / L-520



- Compact distribution Chamber manifold with integrated distributor pipe / collector
- Horizontal distributor pipe
- Flow with PVC ball valves
- Return with flowmeter 5-42 l/min., adjustable and lockable
- Collector pipe with 1" fill and drain valve
- All valves radially removable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available)
- PE cover, tight to surface water, lockable
- Class A 15 as per DIN EN 124 / DIN 1229

For installations in high ground water level or in case of increased statical load a different design is required.





Option:

Height-adjustable telescopic riser for HDPE Chamber manifolds covers class A15 as per DIN EN 124 / DIN 1229.

- For chambers manifolds type 500, 520, 540 and type D 400
- Easy adjusting of height
- Tight sealing with O-ring
- Suitable for retrofitting

Min. height Riser [mm]	variable height [mm]
300	150





Type L-500 with flowmeter 2-12 l/min, ideal for horizontal collectors

Circuits	Pipe diameter [mm]	Connection to circuit	heat pump connection [mm]	Length [mm]	Width [mm]	Height [mm]
2	d 32	on one side	d 63	500	500	650
3	d 32	on one side	d 63	500	500	650
4	d 32	on one side	d 63	500	500	650
5	d 32	on one side	d 63	500	500	650
6	d 32	on one side	d 63	500	500	650
7	d 32	on both side	d 63	500	500	650
8	d 32	on both side	d 63	500	500	650
9	d 32	on both side	d 63	650	500	650
10	d 32	on both side	d 63	650	500	650
11	d 32	on both side	d 63	650	500	650
12	d 32	on both side	d 63	650	500	650
)

Item no. 400328. €/piece 02256 361 846,25 03256 361 1.078,20 04256 361 1.240,45 05256 361 1.400,60 06256 361 1.565,00 07256 361 1.727,25 08256 361 1.887,35 09256 361 2.263,10 10256 361 2.425,40 11256 361 2.585,50

Discount group 118

Type L-520 with flowmeter 5-42 l/min. For geothermal probes

Pipe diameter [mm]	Connection to circuit	heat pump connection [mm]	Length [mm]	Width [mm]	Height [mm]
d 40	on one side	d 63	500	500	650
d 40	on one side	d 63	500	500	650
d 40	on one side	d 63	500	500	650
d 40	on both sides	d 63	500	600	650
d 40	on both sides	d 63	500	600	650
d 40	on both sides	d 63	500	600	650
d 40	on both sides	d 63	500	600	650
	[mm] d 40	[mm] d 40 on one side d 40 on one side d 40 on one side d 40 on both sides	[mm] [mm] d 40 on one side d 63 d 40 on one side d 63 d 40 on one side d 63 d 40 on both sides d 63	[mm] [mm] [mm] d 40 on one side d 63 500 d 40 on one side d 63 500 d 40 on one side d 63 500 d 40 on both sides d 63 500 d 40 on both sides d 63 500 d 40 on both sides d 63 500	[mm] [mm] [mm] d 40 on one side d 63 500 500 d 40 on one side d 63 500 500 d 40 on one side d 63 500 500 d 40 on both sides d 63 500 600 d 40 on both sides d 63 500 600 d 40 on both sides d 63 500 600

12256 361

€/piece	
941,55	١
1.108,10	
1.272,50	
1.550,05	
1.714,45	
1.880,95	
2.045,35	

2.749,90

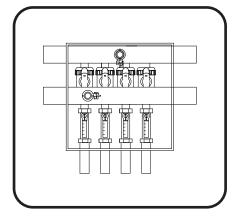


Chamber manifols type L-540



- Compact distribution Chamber manifold with integrated distributor pipe/ collector
- Ideal for installation next to the house wall
- Horizontally arranged collector
- Connection to heat pump on both sides
- All circuit connections on one side
- Flow with PVC ball valves
- Return with flow meter 5-42 l/min., adjustable and lockable
- Manifold beam pipe with 1" fill and drain valve
- All valves are radially removable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available)
- PE cover, tight to surface water, lockable Class A 15 as per DIN EN 124 / DIN 1229

For installations in high ground water level or in case of increased statical load a different design is required.



Height-adjustable telescopic riser for HDPE Chamber manifolds covers class A15 as per DIN EN 124 / DIN 1229.

- For chambers manifolds type 500, 520, 540 and type D 400
- Easy adjusting of height
- Tight sealing with O-ring
- Suitable for retrofitting

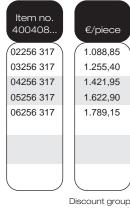
Min. height Riser [mm]	variable height [mm]
300	150





Type L-540 with flowmeter 5-42 l/min. For geothermal probes

		Connection	heat pump			
Circuits	Pipe diameter [mm]	to circuit	connection [mm]	Length [mm]	Width [mm]	Height [mm]
2	d 40	on one side	d 63	500	500	650
3	d 40	on one side	d 63	500	500	650
4	d 40	on one side	d 63	500	500	650
5	d 40	on one side	d 75	650	500	650
6	d 40	on one side	d 75	650	500	650





Chamber Manifold Type L-625





- Compact distribution Chamber manifold with integrated distributor pipe/ collector
- Horizontally arranged collector,
- Shut-off valve in circuit to heat pump,
- Flow with PVC ball valves,
- Return with flow meter 5-42 l/min., adjustable and lockable,
- Manifold beam with 1" fill and drain valve
- All valves are radially removable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available),
- Plastic manhole cover, watertight, 200 kg load-bearing capacity

For installations in high ground water level or in case of increased statical load a different design is required.



Circuits	Pipe diameter* [mm]	Connection to Circuit	heat pump connection* [mm]	Height [mm]	Diameter [mm]
2	d 40	on one side	d 63	834	625
3	d 40	on one side	d 63	834	625
4	d 40	on one side	d 63	834	625

^{*} other diameters on request



Chamber manifolds Type L-750-T



- Premanufactured manifold chamber with integrated distributor/collector
- Height-adjustable cover for easy adjustment (+150mm)
- Horizontally arranged collector
- Circuit connections to both sides
- Circuit connection d 32mm or d 40mm
- Flow with PVC ball valve
- Return with flow meter 5-42 l/min., adjustable and lockable
- Manifold beam with 1" fill and drain valve
- All valves radially removable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available)
- PE cover, tight to surface water, lockable Class A 35 as per ISO 15398
- Option: chamber cover up to class D 400 possible

For installations in high ground water level or in case of increased statical load a different design is required







Circuits	Pipe diameter* [mm]	heat pump connection* [mm]	Height [mm]	Diameter [mm]
2	d 40	d 63	850 - 1000	750
3	d 40	d 63	850 - 1000	750
4	d 40	d 63	850 - 1000	750
5	d 40	d 63	850 - 1000	750
6	d 40	d 63	850 - 1000	750
7	d 40	d 63	850 - 1000	750
8	d 40	d 63	850 - 1000	750
9	d 40	d 63	850 - 1000	750
10	d 40	d 63	850 - 1000	750

Option balancing valves

Option shut-off valve in heat pump circuit

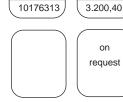
Option chamber cover iron, class B 125 as per DIN EN 124 / DIN 1229

Option chamber cover iron, class D 400 as per DIN EN 124 / DIN 1229

*other diameters on request



Item no. 400408	€/piece
02176313	1.962,10
03176313	2.115,80
04176313	2.271,65
05176313	2.425,40
06176313	2.581,25
07176313	2.737,10
08176313	2.890,80



09176313

Discount group 118

3.046,65

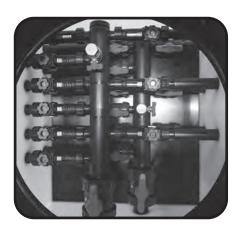


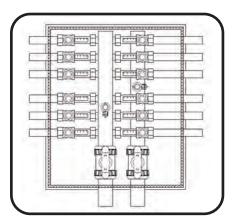
Chamber manifolds Type L-800-T



- Compact distribution Chamber manifold with integrated distributor pipe/ collector
- Horizontally arranged collector,
- Shut-off valve in circuit to heat pump,
- Flow with PVC ball valves,
- Return with flow meter 5-42 l/min., adjustable and lockable,
- Manifold beam with 1" fill and drain valve
- All valves are radially removable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available)
- PE cover, tight to surface water, lockable Class A 35 as per ISO 15398

For installations in high ground water level or in case of increased statical load a different design is required.





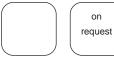
Circuits	Pipe diameter* [mm]	Connection to Circuit	Heat pump connection* [mm]	Länge [mm]	Breite [mm]	Höhe [mm]
4	d 40	on one side	d 75	500	500	650
5	d 40	on both side	d 75	500	500	650
6	d 40	on both side	d 75	500	500	650
7	d 40	on both side	d 75	500	500	650
8	d 40	on both side	d 75	500	500	650
9	d 40	on both side	d 75	650	500	650
10	d 40	on both side	d 75	650	500	650
11	d 40	on both side	d 90	650	500	650
12	d 40	on both side	d 90	650	500	650

Option balancing valves

Option chamber cover iron, class B 125 as per DIN EN 124 / DIN 1229

Option chamber cover iron, class D 400 as per DIN EN 124 / DIN 1229





11087 113

12087 113

Discount group

4.419,45

4.581,75



^{*}other diameters on request

Chamber manifols type L-1200-T / L-1400-T



- Premanufactured manifold chamber with integrated distributor/collector
- Height-adjustable cover for easy adjustment (+150mm)
- Horizontally arranged collector
- Shut-off valve to heat pump in circuit
- Circuit connection d 32mm, d 40mm or d 50mm
- Flow with PVC ball valve
- Return with flow meter 5-42 l/min., adjustable and lockable
- Collector with 1" fill and drain valve
- All valves radially removable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available)
- PE cover, tight to surface water, lockable Class A 35 as per ISO 15398
- Option: chamber cover up to class D 400 possible

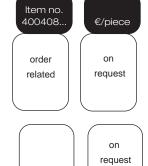


For installations in high ground water level or in case of increased statical load a different design is required

Circuits	Туре	Pipe diameter* [mm]	heat pump connection* [mm]	Height [mm]	Diameter [mm]
2 - 16	L-1200-T	d 32, d 40 or d 50	63 - 125	1350 - 1500	1200
2 - 20	L-1400-T	d 32, d 40 or d 50	90 - 160	1600 - 1750	1400

Option: balancing valves

Option: Chamber manifold cover iron, class B 125 as per DIN EN 124 / DIN1229 Option: Chamber manifold cover iron, class D 400 as per DIN EN 124 / DIN1229





^{*}other diameters on request

Chamber manifolds type V-1200-T / V 1300-T

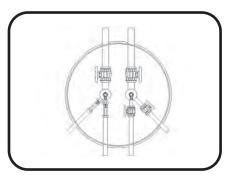


- Premanufactured manifold chamber with integrated distributor/collector
- Height-adjustable cover for easy adjustment (+150 mm)
- Vertically arranged collector
- Shut-off valve in circuit to heat pump
- Circuit connection d 32mm, d 40 mm or d 50 mm
- Flow with PVC ball valve
- Return with flow meter 5-42 l/min., adjustable and lockable
- Collector with 1" fill and drain valve
- All valves radially removable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available)
- PE cover, tight to surface water, lockable Class A 35 as per ISO 15398
- Option: chamber cover up to class D 400 possible

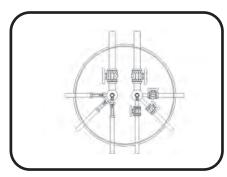
For installations in high ground water level or in case of increased statical load a different design is required







Type V-1200-T

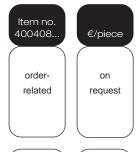


Type V-1300-T

Circuits	Type	Pipe diameter [mm]	Heat pump connection [mm]	Height [mm]	Diameter [mm]
2-14	V-1200-T	d 32, d 40	d 63	1350 - 1500	1150
15-16		or d 50	bis d 125	1450 - 1600	1150
11-21	V-1300-T	d 32, d 40	d 63 bis	1350 - 1500	1150
22-24		or d 50	d 140	1450 - 1600	1150

Option: balancing valves

Option: Chamber manifold cover iron, class B 125 as per DIN EN 124 / DIN1229 Option: Chamber manifold cover iron, class D 400 as per DIN EN 124 / DIN1229









^{*}other diameters on request

Chamber manifolds Type H-1400-T / H-1500-T



- Premanufactured manifold chamber with integrated distributor/collector
- Height-adjustable cover for easy adjustment (+150mm)
- Horizontally arranged collector
- Shutt-off valve in circuit to heat pump
- Circuit connection d 32mm, d 40mm or d 50mm
- Flow with PVC ball valve
- Return with flow meter 5-42 l/min., adjustable and lockable
- Collector with 1" fill and drain valve
- All valves radially detachable
- All pipe connections are welded to Chamber manifold
- Pressure tested manifold (certificate available)
- PE cover, tight to surface water, lockable Class A 35 as per ISO 15398

For installations in high ground water level or in case of increased statical load a different design is required.



Typ H-1400-T / H-1500-T

Circuits	Туре	Pipe diameter* [mm]	Heat pump connection* [mm]	Height [mm]	Diameter [mm]
11 - 32	H-1400-T	d 32, d 40 oder d 50	90 - 140	1600 - 1750	1400
33 - 40	H-1500-T	d 32, d 40 oder d 50	110 - 140	1700 - 1850	1500

Option: balancing valves

Option: Chamber manifold cover iron, class B 125 as per DIN EN 124 / DIN1229 (not for H-1800-T) Option: Chamber manifold cover iron, class D 400 as per DIN EN 124 / DIN1229 (not for H-1800-T)







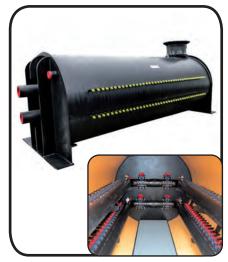
^{*} Dimension depends on total flow volume / number of circuits

Chamber manifolds made of FRANK spiral pipe



Vertical chamber manifolds (H-1500 / H-1800 and other models)

- Distribution Chamber manifolds with casing made of spiral pipe for high load
- Static calculation for car or truck load as well as for high ground water level possible
- Including verifiable static calculation
- Pressure tested collector with horizontally or vertically arranged distributor
- Manifold cover with concrete plates distributing the load into the ground
- Optional with dome made of PE for secure incorporation into concrete base plate



Horizontal chamber manifolds (submarine type)

- Chamber manifolds with spiral pipe corpus for up to 200 circuits. Spacious interior.
- Chamber casing made of spiral pipe for high load
- Static calculation for car or truck load as well as for high ground water level possible
- Including verifiable static calculation
- Pressure tested collector with horizontally arranged distributor
- Height adjustable Chamber manifold dome for easy height-adjustment of cover
- Optional with Chamber manifold dome made of PE for secure integration into concrete floor slab

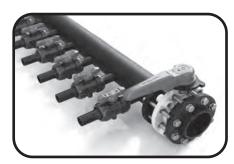


Chamber manifolds made of FRANK spiral pipe

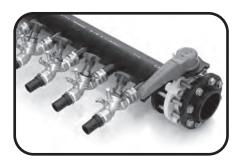




Plastic brine manifold, customized version



- PE 100 manifold with big dimensioned collector pipe from d 90 mm
- The position of the connection is adaptable to the constructural conditions
- Connections alternatively as flanged version, flat sealing connection, compression fitting or spigot
- With fill and drain valve at the collector pipe
- Connection to the probe alternatively via ball valve, flow meter or balancing valve (e.g. Hydrocontrol)
- Manometer and thermometer optional
- Dimensioning and design of the components will be done acc. to your requirements
- Questionnaire availabe on our website
- Pressure tested



Description

Plastic brine manifold made of PE 100

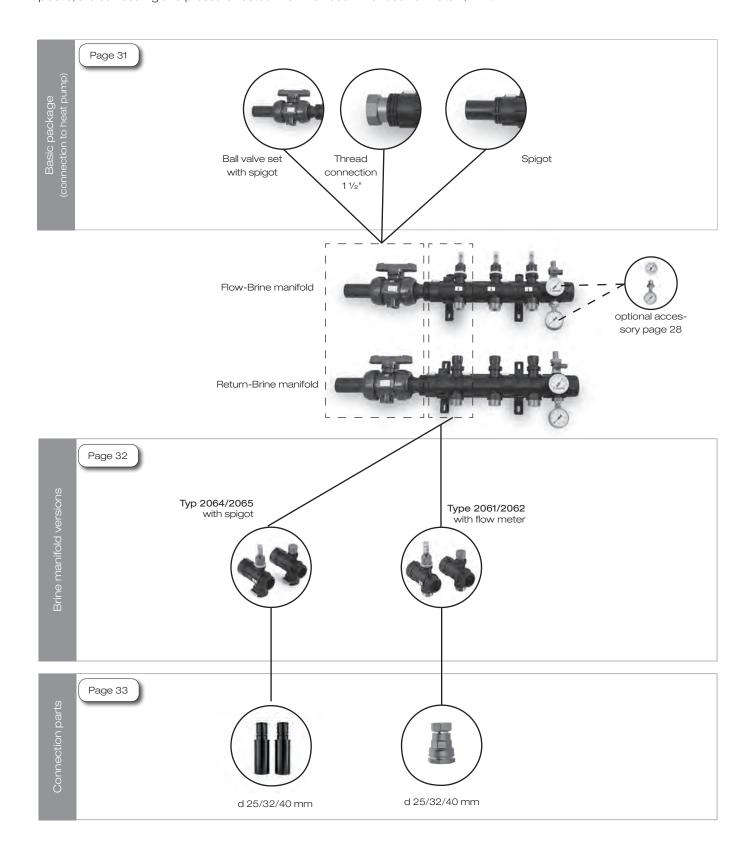




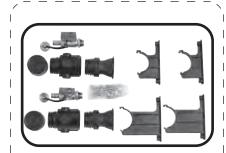


Modular Plastic brine manifold type 2061/2062/2064/2065. Possible setups

Thanks to the modular system, the plastic brine manifold can be adapted according to your requirement. The heat pump connections can be designed with ball valve set, thread or spigot connection. Depending on the brine manifold module the circuit connection can be produced with threaded coupling or spigot. The manifold segments are made of glass-fibre reinforced plastic, are self-sealing and pressure-tested. Maximal recommended flow rate 7,7 m³/h.



Basic package (Heat pump connections)



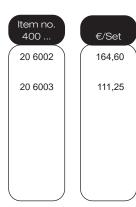


Basic package flanged version with ball valve set

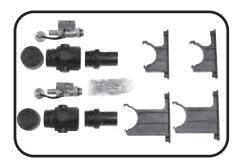
- 2 x Heat pump connection with flange for ball valve set
- 2 x Cross piece
- 2 x End cap
- 2 x Wall bracket, short
- 2 x Wall bracket, long
- 2 x Fill and drain valve, 1/2" thread
- Mounting material

Description

Basic package manifold, flanged version Ball valve set DN 32, incl. 2 PE spigots long, SDR 11, d 40



Discount group



Basic package welded version

- 2 x Heat pump connection with PE spigot long, SDR 11, d 40
- 2 x Cross piece
- 2 x End cap
- 2 x Wall bracket, short
- 2 x Wall bracket, long
- 2 x Fill and drain valve, 1/2" thread
- Mounting material

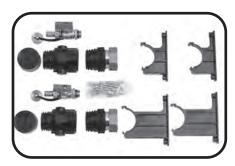
Description

Basic package manifold set, welded version





Discount group



Basic package threaded version

- 2 x Heat pump connection with brass union nut 1 ½", flat sealing
- 2 x Cross piece
- 2 x End cap
- 2 x Wall bracket short
- 2 x Wall bracket long
- 2 x Fill and drain valve ½" thread
- Mounting material

Description

Basic package manifold set, threaded version





Discount group 88



Manifold sets



Manifold set for type 2064 / 2065 with flow meter

- Basic module, 1 x flow and 1 x return, extendable
- Flow with flow meter and stop ring for pre-adjustment
- Spigot distance 100 mm
- Connection for plug-spigot with safety clip

Description

Manifold set for brine type 2064 with integrated, adjustable flow meter 7 - 32 I/min

Manifold set for brine type 2065 with integrated adjustable flow meter **4 - 20 l/min**



Discount group



Manifold set for type 2061/2062 with flow meter

- Basic module, 1 x flow and 1 x return, extendable
- Flow with flow meter and stop ring for pre-adjustment
- Spigot distance 100 mm
- Flat sealing brass circuit connection 1" male

Description

Manifold set for brine type 2061 with integrated, adjustable flow meter 7 - 32 I/min

Manifold set for brine type 2062 with integrated, adjustable flow meter **4 - 20 l/min**



20 6201

Discontinued item



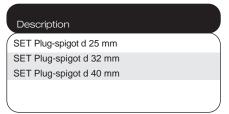


Connection parts for manifold sets



Plug-spigot for manifold set type 2064/2065

- Safe sealing via O-rings
- Spigot made of PE 100 SDR 11
- To connect via electro fusion fittings
- Packed in pairs

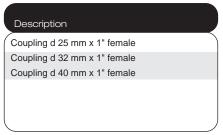




Discount group 88

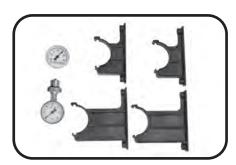


Connection compression fitting for manifold set type 2061/2062

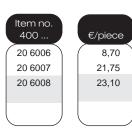




Accessories for manifold set type 2060 up to 2065



	Description
(Thermometer with pocket, -20°C up to 40°C
	Manometer with mounting valve, 0-6 bar
	Wall-mounting set for brine manifold
	(2 short and 2 long + mounting material)



Discount group 88

Calculation of wall mounting sets:

No. of circuits	2 - 5	6-9	10-12
Needed wall mounting sets	2*	3	4

^{*} included in basic package

Modular plastic brine manifold type 3060

Discontinued item



- Large dimensioned manifold as kit
- Quick assembly via pre-assembled sets
- Shut-off and regulating valve in each circuit
- Return with flow meter 5 42 l/min.
- Sealing of segments via O-rings,
- Circuit connection via plug-spigot made of PE 100
- Max. recommended total volume flow 16 m³/h

The following components are necessary for a 5-way manifold:

■ 1 pc. Basic package

■ 1 pc. Manifold set 2-circuits

1 pc. Manifold set 3-circuits

■ 5 pcs. Plug-spigot sets

Description	Content
Basic package	2 pcs. Heat pump connection with cross pieces 2 pcs. Fill and drain valves 1" 2 pcs. End caps 2 pcs. Clamps 2 pcs. Wall brackets each short and long
Manifold set 2-circuits Manifold set 3-circuits	2 pcs. Manifold segments, pre-assembled, 1 pc. clamp 3 pcs. Manifold segments, pre-assembled, 1 pc. clamp
Thermometer Manometer Wall-mounting set	- 20 °C to + 40 °C 0-6 bar 1 Wall bracket, short, 1 wall bracket long (starting from 8 circuits, see installation instructions)

Item no.: 400	€/piece
30 6001	333,65
30 6002	281,60
30 6003	419,45
20 6006	8,70
20 6007	21,75
30 6004	15,25

Discount group 88



- Plug-spigot for type 3060
- Safe sealing via O-rings
- Spigots made of PE 100 SDR 11
- For connection with electro fusion couplers
- Packed in pairs

Description	Connection [mm]	Content
Plug-spigot	d 32	2 pcs.
Plug-spigot	d 40	2 pcs.
Plug-spigot	d 50	2 pcs.

Item no.: 400	€/Set
30 6007	47,35
30 6005	47,35
30 6006	50,00



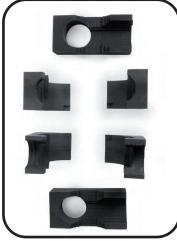
Insulating shell sets for FRANK plastic brine manifold type 3060

Discontinued item

Equipment required for 2 circuits

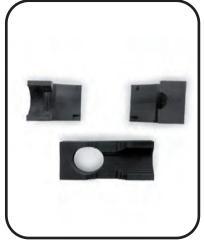


Insulating shell set (basic package)
[G]



Insulating shell set (wall bracket) [W]

from 3 circuits additionally needed

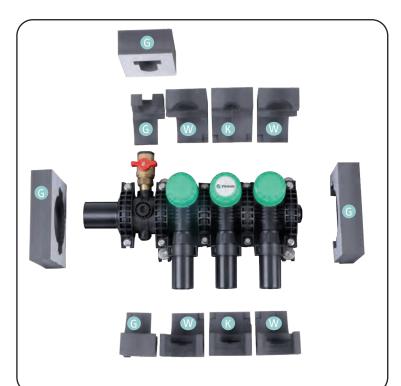


Insulating shell set (circle) [K]

Description	Content
Insulating shell set (basic package) [G]	2x insulation shells heat pump connection2x insulation shells end cap2x insulating shells cross piece (4-piece)
Insulating shell set (wall bracket) Insulating shell set (circle) [K]	2x insulating shells holder segment (6-piece) 2x insulating shells circle segment (3-piece)

Item No. 400	€/piece
30 6010	396,10
30 6011 30 6012	304,70 268,10

Discount group 88



The following sets are required for insulating a 4-way distributor type 3060 the following sets are required:

- 1 pc. Insulating shell set (basic package)
- 1 pc. Insulating shell set (wall bracket)
- 2 pc. insulating shell set (circle)

Accessories (on-site):

Seal the individual components using diffusion-proof adhesive tape or liquid adhesive, e.g.:

- Armacell adhesive tape
- Armacell liquid adhesive





FRANK PE building entry system, angled





- Compact building entry with main shut-off,
- different pipe sizes,
- incl. PVC ball valve for shut-off,
- transfer connection with brass thread, flat sealing,
- 90° deflection within the building in the installation level.

Ideal as a transfer point between trades.

Description	Thread	Dimensions I x w [mm]	Connection [mm]
Building entry d40, angled	1 1/4" AG	670 x 325	PE 100 spigot d 40 mm
Building entry d50, angled	1 1/2" AG	680 x 345	PE 100 spigot d 50 mm
Building entry d63, angled	2" AG	700 x 400	PE 100 spigot d 63 mm

Item no.: 400	€/piece
6404 16	91,20
6505 16	110,30
6636 46	133,10
	Discount group

FRANK PE building entry system, straight





- Compact building entry with main shut-off, different pipe sizes,
- incl. PVC ball valve for shut-off,
- transfer connection with brass thread, flat sealing.

Ideal as a transfer point between trades.

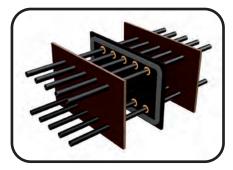
Description	Thread	Dimensions I x w [mm]	Connection [mm]
Building entry d40, straight	1 1/4" AG	860	PE 100 spigot d 40 mm
Building entry d50, straight	1 1/2" AG	870	PE 100 spigot d 50 mm
Building entry d63, straight	2" AG	900	PE 100 spigot d 63 mm

Item no.: 400	€/piece
6404 06	79,60
6505 06	98,30
6636 36	117,25
	Discount group

Discount grou 12



FRANK floor / wall duct



Wall or floor ducts for the insertion of several pipes into the building

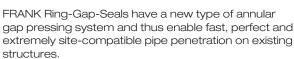
- No extensive drilling work and single waterproofing measures necessary
- Fully premanufactured unit
- Simple and safe handling on the construction site
- Sealing plate made of PE with pipe sealing and circumferential water blocking tape
- Completely with plywood (lost formliner) or in polyethylene as permanent formliner
- Small distances for a space saving insertion, even in case of high number of pipes
- Exact positioning and parallel arrangement of the pipes provide a neat appearance
- PE pipe sockets for an easy welded connection
- The distances between the sockets correspond with the manifolds of the FRANK GET-system

For pipe	Number	Length	Height
d [mm]	of pipe sockets	[mm]	[mm]
32, 40, 50	2 - 40	350 - 6200	





FRANK Ring-Gap-Seal



Almost all media pipes can be sealed. Please contact us.



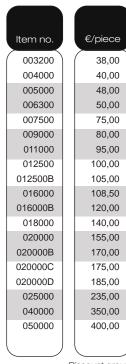




Artikelgruppe 93 954...

	DN	Description	AD Pipe Tol. +2/-2 ²⁾	Core drilling Tol. +2/-1 ²⁾	Depth	VE¹)
	[mm]		[mm]	[mm]	[mm]	
	32	SP-D 32	32	80	60	20
	40	SP-D 40	40	80	60	20
	50	SP-D 50	50	100	60	20
	63	SP-D 63	63	100	60	20
	75	SP-D 75	75	130	60	20
	90	SP-D 90	90	130	60	20
	100	SP-D 110	110	150	60	20
	125	SP-D 125	125	165	60	20
	125	SP-D 125 B	135	200	60	16
	150	SP-D 160	160	200	60	16
	150	SP-D 160 B	170	210	60	16
	180	SP-D 180	180	240	60	15
	200	SP-D 200	200	240	60	15
	200	SP-D 200 B	200	250	60	15
2,5 bar Water pres- sure-tight!	200	SP-D 200 C	210	270	60	16
water pres	200	SP-D 200 D	220	270	60	15
cure-tight!	250	SP-D 250	250	300	60	8
30.	400	SP-D 400	400	450	60	4
	500	SP-D 500	500	550	60	2
	other d	imensions on requ	uest			

⁾ VE = packaging unit.



Discount group

9



²⁾ Can be matched to any AD or KB with the appropriate rubber stoppers - please contact us.

Wall mounting for pipelines



Ring sealing

- Ring sealing with flexible EPDM sealing
- For the installation of core drilled holes or casing
- Stainless steel plates for pressing
- Tight at non-pressing water
- Splitted design and special dimensions on request

for pipe d [mm]	outside diameter [mm]	width [mm]
40	99	30
50	99	30
63	99	30
75	123	30
90	148	30
110	148	30
125	198	30

Item no. 400	€/piece
10 4010	85,75
10 5010	85,75
10 6310	85,75
10 7510	132,10
10 9010	187,00
10 1110	187,00
10 1210	256,10

Discount group



FRANK puddle flange installation kit

Sealing up to 100 m/50 m water head (10bar up to d 315, 5bar d355 to d 500)

Suitable for almost all pipe materials. The puddle flange installation kit is supplied with 2 adequate steel straps, respectively 3 straps for puddle flanges of d 355 mm and bigger.

EPDM

Item no.

90 954...

€/piece

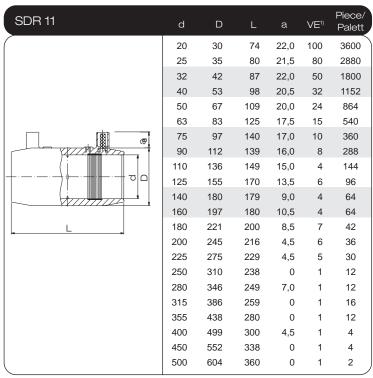
		D,	Diameter range
	d _{pipe}	<u> </u>	
	20	16	18 - 24
	25	21	23 - 29
20	32	29	31 - 37
	40	38	40 - 46
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	50	48	50 - 57
	63	60	62 - 69
	75	71	73 - 82
	90	84	86 - 97
60	100	95	97 - 108
	110	105	107 - 121
	125	120	122 - 137
	140	132	135 - 155
/ \	160	154	160 - 177
()	180	173	176 - 197
	200	195	198 - 224
	225	215	220 - 249
	250	245	250 - 279
	280	275	280 - 314
	315	310	315 - 354
10	355	310	355 - 399
	400	353	400 - 449
10.10	450	400	450 - 499
19.5 30	500	448	500 - 559
80			



E-Coupler

Injection moulded made of PE 100-RC,

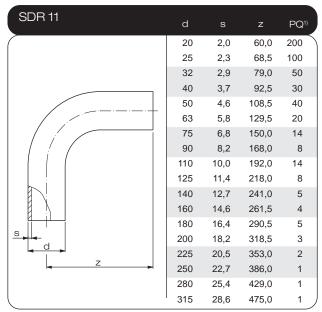
with embedded heating spirals for gentle heating and for improved compensation of pipe ovalities, for welding pipes and fittings with long spigot ends.





MULTI Bend 90°

injection moulded with long spigots, $r \approx d$



PQ = Packaged quantity





DIBt zugelassen bis d 355



erhältlich ab d 20 - d 500 auf Anfrage



auf Anfrage



DVGW

DIBt

 $\stackrel{\text{fM}}{\bigcirc}$

erhältlich ab d 63

auf Anfrage

DNV

erhältlich für PE 100

d 32 - d 225 auf Anfrage

Item-No	€/piece
0020 11	15,95
0025 11	17,35
0032 11	19,30
0040 11	19,95
0050 11	30,65
0063 11	32,40
0075 11	44,95
0090 11	59,80
0110 11	72,55
0125 11	99,30
0140 11	115,25
0160 11	135,45
0180 11	194,10
0200 11	229,15
0225 11	295,15
0250 11	434,70
0280 11	589,10
0315 11	708,45
0355 11	1.297,15
0400 11	1.626,40
0450 11	2.095,85
0500 11	2.458,95

Discount group PE 26

Article group

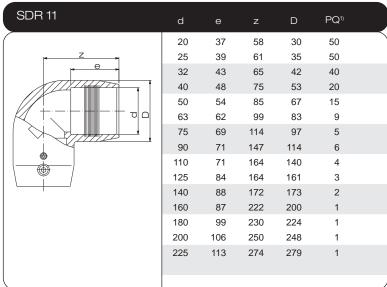
PE 100-RC 70 068...

Item no.	€/piece
0020 11	12,65
0025 11	13,25
0032 11	14,30
0040 11	18,15
0050 11	23,65
0063 11	42,70
0075 11	56,15
0090 11	64,40
0110 11	118,00
0125 11	150,40
0140 11	167,80
0160 11	231,05
0180 11	259,50
0200 11	370,10
0225 11	435,45
0250 11	851,05
0280 11	1.229,65
0315 11	1.562,75



E-Elbow 90°

Injection moulded, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities



DIBt €M Appr ab d 63 - d 225 erhältlich für PE 100 d 32 - d 225 auf Anfrage

DVGW

PE 100-RC 70 171... Article group

Item no.	€/piece
0020 11	34,45
0025 11	34,45
0032 11	36,55
0040 11	43,65
0050 11	54,60
0063 11	62,40
0075 11	87,75
0090 11	109,25
0110 11	157,60
0125 11	217,45
0140 11	374,05
0160 11	428,75
0180 11	624,15
0200 11	859,95
0225 11	923,25
)

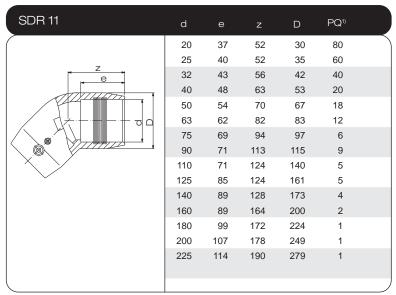
Discount group PE 24

E-Elbow 45°

PQ = Packaged quantity

injection moulded,

with embedded heating spirals for gentle heating and improved compensation of pipe ovalities



PQ = Packaged quantity

Article group PE 100-RC 70 170...



DVGW

DIBt

erhältlich

ab d 63 - d 225 auf Anfrage

erhältlich für PE 100

d 32 - d 225 auf Anfrage



Discount group PE 24



E-Reducer

Injection moulded, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities

SDR 11 d_2 D PQ¹⁾ e₂ Φ D 1802)

Article group PE 100-RC 70 177...

Item no.

€/piece







ab d 90 - d 225 auf Anfrage



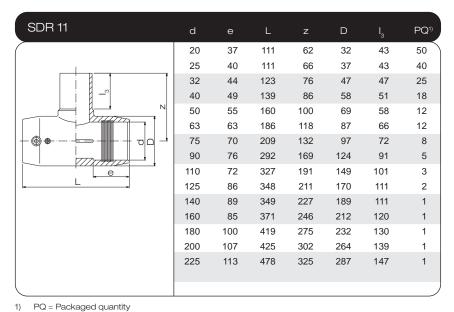


2520 11		22,60
3220 11		26,50
3225 11		28,65
4020 11		34,75
4025 11		34,75
4032 11		34,10
5025 11		38,10
5032 11		38,10
5040 11		42,00
6332 11		51,15
6340 11		51,15
6350 11		51,15
7550 11		61,45
7563 11		61,45
9063 11		76,35
1163 11		121,40
1190 11		123,35
1290 11		151,55
1211 11		151,55
1690 11		237,30
1611 11		235,50
1812 11		906,05
2216 11		548,35
	ノ	

PQ = Packaged quantity without FM-approval

E-Tee

Injection moulded, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities. Please use reducers for smaller couplings.



€/piece Item no. 0020 11 35.00 0025 11 35.00 **DIBt** 0032 11 37,45 0040 11 42,15 0050 11 55,30 0063 11 60.25 0075 11 86.25 erhältlich 0090 11 108,45 ab d 63 - d 225 auf Anfrage 0110 11 161,70 0125 11 208,35 0140 11 368,80 0160 11 378,80 0180 11 658,95 erhältlich für PE 100 d 32 - d 225 0200 11 844,45 auf Anfrage 0225 11 1.032,35

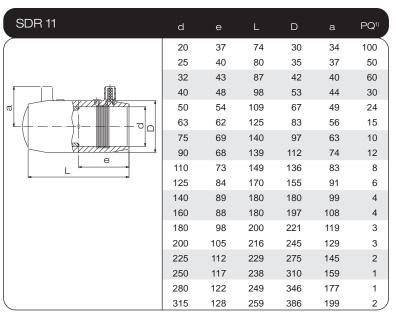
Article group PE 100-RC

70 176...

Discount group PF 24

E-End cap

Injection moulded, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities



PQ = Packaged quantity

Article group









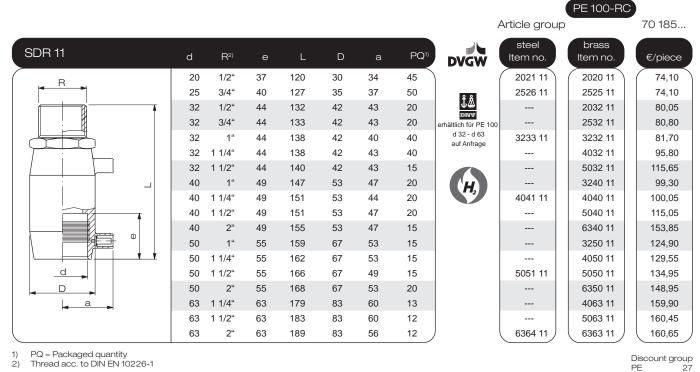
PE 100-RC

70 174...



Male E-Adaptor socket

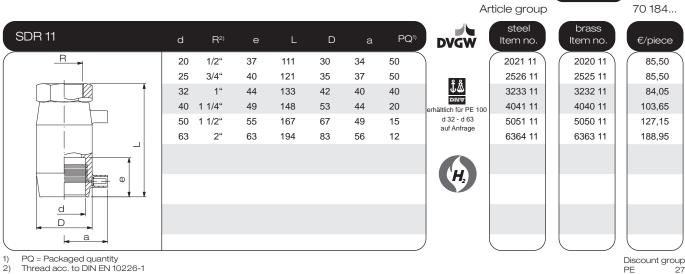
Injection moulded, external thread of brass or steel, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities



- PQ = Packaged quantity Thread acc. to DIN EN 10226-1

Female E-Adaptor socket

Injection moulded, internal thread of brass or steel, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities

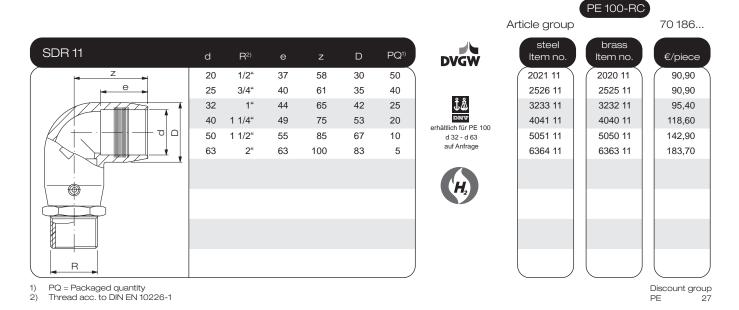




PE 100-RC

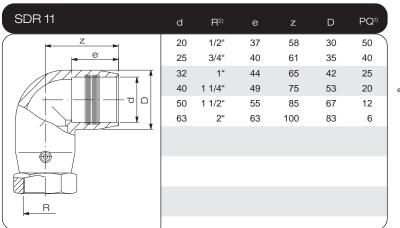
Male E-Adaptor elbow 90°

Injection moulded, internal thread of brass or steel, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities



Female E-Adaptor elbow 90°

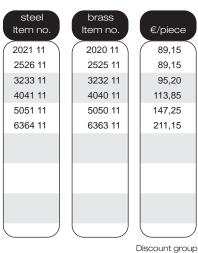
Injection moulded, internal thread of brass or steel, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities





jå erhältlich für PE 100 auf Anfrage





PE 100-RC

Article group

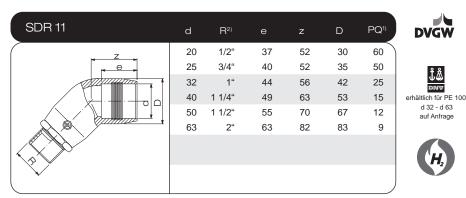
70 187...

- PQ = Packaged quantity Thread acc. to DIN EN 10226-1



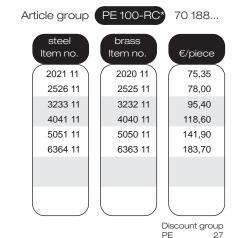
Male E-Adaptor elbow 45°

Injection moulded, external thread of brass or steel, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities





PQ = Packaged quantity Thread acc. to DIN EN 10226-1



d 32 - d 63

auf Anfrage

erhältlich für PE 100

auf Anfrage

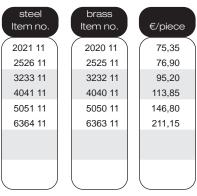
Female E-Adaptor elbow 45°

Injection moulded, internal thread of brass or steel, with embedded heating spirals for gentle heating and improved compensation of pipe ovalities

SDR 11	d	R ²⁾	е	z	D	PQ ¹⁾
z	20	1/2"	37	52	30	60
e	25	3/4"	40	52	35	25
	32	1"	44	56	42	15
	40	1 1/4"	49	63	53	15
	50	1 1/2"	55	70	67	12
	63	2"	63	82	83	9

- PQ = Packaged quantity Thread acc. to DIN EN 10226-1

Article group PE 100-RC 70 189...





Adaptor female thread

made of steel or brass, according to DIN EN 12201-3 and 1555-3, can be combined with all Agru heating coil fittings.





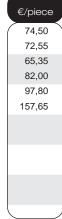


Article group

PE 100-RC

70 180...

SDR 11	d	d₁	R ²⁾	l,	l ₂	l ₃	SW	VE¹)
SW s	20	12	1/2"	76	40	15	32	50
R	25	16	3/4"	80	43	16	36	50
	32	21	1"	88	46	19	41	40
	40	27	1 1/4"	98	51	21	50	20
	50	33	1 1/2"	110	57	23	60	20
	63	42	2"	129	65	27	70	20
_^								
<u>a</u> a								



Discount group PE 27

Adaptor male thread

made of steel or brass, according to DIN EN 12201-3 and 1555-3, can be combined with all Agru heating coil fittings.







Article group

PE 100-RC

70 181...

							aarrama	90
SDR 11	d	d ₁	R ²⁾	l ₁	l ₂	l ₃	SW	VE¹)
_ SW _	20	12,0	1/2"	81	40	16	32	50
R	25	16,0	3/4"	85	43	16	36	50
	32	12,0	1/2"	88	46	17	41	50
	32	16,0	3/4"	90	46	18	41	40
	32	21,0	1"	92	46	19	41	40
	32	21,0	1 1/4"	95	46	23	46	30
	32	21,0	1 1/2"	97	46	25	55	45
d _	40	21,0	1"	99	51	21	50	20
	40	27,5	1 1/4"	100	51	21	50	20
	40	27,5	1 1/2"	103	51	25	55	20
	40	27,5	2"	107	51	29	65	30
	50	21,0	1"	105	57	21	60	20
	50	27,5	1 1/4"	107	57	22	60	30
	50	33,5	1 1/2"	109	57	25	60	30
	50	33,5	2"	114	57	29	65	24
	63	27,5	1 1/4"	117	65	21	70	20
	63	33,5	1 1/2"	121	65	25	70	20
	63	42,0	2"	124	65	27	70	20

Steel Item no.	Brass Item no.	€/piece
1020 11	0020 11	62,80
1025 11	0025 11	60,60
	2032 11	63,00
	2532 11	63,40
1032 11	0032 11	64,20
	4032 11	78,00
	5032 11	97,30
	3240 11	80,20
1040 11	0040 11	81,30
	5040 11	95,95
	6340 11	135,75
	3250 11	92,25
	4050 11	95,05
1050 11	0050 11	100,15
	6350 11	114,55
	4063 11	129,15
	5063 11	129,60
	0063 11	130,20



PQ = Packaged quantity

Thread acc. to DIN EN 10226-1

PQ = Packaged quantity Thread acc. to DIN EN 10226-1

Pipe union female thread

made of stainless steel (V2A), steel or brass, according to DIN EN 12201-3 and 1555-3, for transition sleeve and transition angle.

d₁ SW VE¹⁾ SDR 11 25 20,4 3/4" 119 60 47 32 26 127 60 53 40 32,6 1 1/4" 128 66 66 50 40,8 149 80 72 63 51,5 164 85 75 2 1/2" 179 90 109 90 73,6 199 100 150 218 150



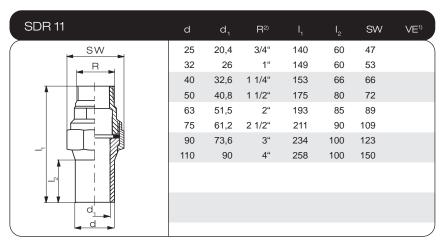
Article group PE 100

Stainless	
steel	€/piece
Item no.	
2525 11	81,90
3232 11	95,75
4040 11	132,65
5050 11	162,55
6363 11	201,10
7575 11	369,90
9090 11	471,30
1111 11	685,35
	Discount group
	PE 27

97 032...

Pipe union male thread

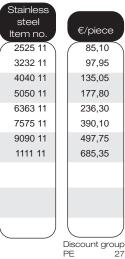
made of stainless steel (V2A), steel or brass, according to DIN EN 12201-3 and 1555-3, for transition sleeve and transition angle.



1) Thread acc. to DIN EN 10226-1

Article group PE 100 97 033...



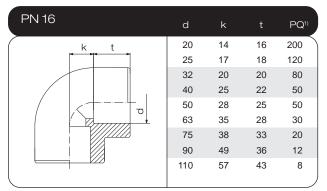




¹⁾ Thread acc. to DIN EN 10226-1

Elbow 90°

molded, according to DIN EN 12201-3, type B.









DIBt

erhältlich für PE 100

d 32 - d 110

auf Anfrage

DIBt

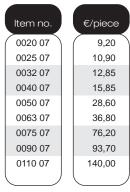
zugelassen

erhältlich für PE 100

auf Anfrage

Article group PE 100 25 051...

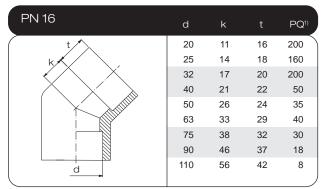
70 051... Article group PE 100-RC



Discount group

Elbow 45°

molded, according to DIN EN 12201-3, type B.



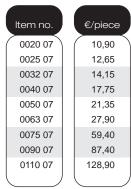
PQ = Packaged quantity

Article group PE 100

25 050...

Article group PE 100-RC

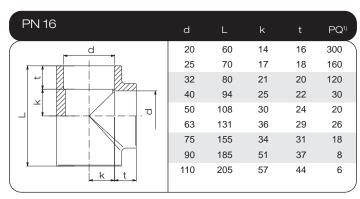
70 050...



Discount group

Tee

molded, according to DIN EN 12201-3, type B.



PQ = Packaged quantity

Article group PE 100

25 056...

Article group PE 100-RC

70 056...

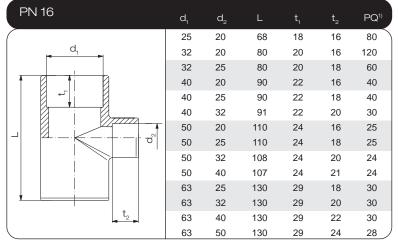
Item no.	€/piece			
	C/ piece			
(0020 07)	(10,75			
0025 07	11,85			
0032 07	13,85			
0040 07	17,20			
0050 07	27,90			
0063 07	38,80			
0075 07	80,55			
0090 07	125,00			
0110 07	166,60			
Discount group				



PE

Tee

molded, according to DIN EN 12201-3, type B, reduced.



PQ = Packaged quantity

Article group PE 100

DIBt

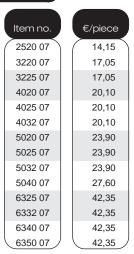
jå

DNV

d 32 - d 63 auf Anfrage

25 055...

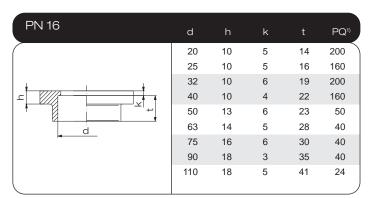
Article group PE 100-RC 70 055...



Discount group

Flange adaptor

molded, according to DIN EN 12201-3, type B.



PQ = Packaged quantity



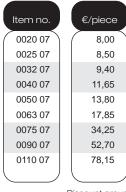
auf Anfrage

DIBt

Article group PE 100

25 052...

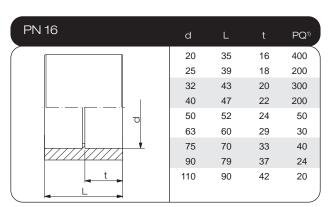
Article group PE 100-RC 70 052...



Discount group

Socket

molded, according to DIN EN 12201-3, type B.



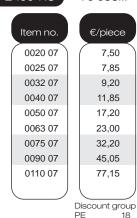
PQ = Packaged quantity





Article group PE 100 25 053...

Article group PE 100-RC 70 053...





Reducer concentric

molded, according to DIN EN 12201-3, type B.

 d_2

PN 16 PQ¹⁾ d_1 k d_2 L 25 20 39 16 23 280 32 20 45 16 29 300 32 25 45 18 27 160 d, 40 20 50 16 34 160 40 25 50 18 32 160

63

63

63

63

75

90

90

110

110

25

32

40

50

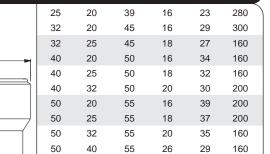
63

63

75

63

90



65

65

65

65

64

88

86

90

89

18

20

22

24

29

29

32

29

37

47

45

43

41

35

59

54

61

52

120

50

50

40

32

40

24

30

24

Article group PE 100

25 057...

Article group PE 100-RC

70 057...

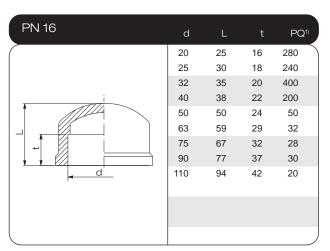


Discount group PE 18

PQ = Packaged quantity

End cap

molded, according to DIN EN 12201-3, type B.



PQ = Packaged quantity

Article group

DIBt

zugelassen

erhältlich für PE 100

d 32 - d 110

auf Anfrage

DIBt zugelassen

ĴÅ d 32 - d 110 auf Anfrage Article group PE 100 25 054... PE 100-RC 70 054...

> €/piece Item no. 0020 07 7.85 0025 07 8.30 0032 07 9,05 0040 07 11,85 0050 07 14.60 0063 07 19,65 0075 07 39,60 0090 07 55,50 0110 07 75,60

Electro fusion welding machine









- E-fusion welding machine with logging function
- Safely integrated in transport case
- Dimensions:d 20 d 125 mmd 140 d 180 mm*,
- Bar code reading (welding parameters and traceability)
- Bluetooth interface to use the EFS app.
- Recording capacity of ca 1000 records
- USB interface (for USB-stick)
- Incoming: 230V / 50Hz
- Outgoing: 8-48V (max. 54A)
- Weight: ca. 11kg

*prolonged cooling time needs to be respected Operating instructions must be observed



Description polycode 400 (BT)





- E-fusion welding machine with logging function
- Safely integrated in transport case
- Dimensions: d 20 - d 400 mm > d 400 mm*,
- Bar code reading (welding parameters and traceability)
- Bluetooth interface to use the EFS app
- Recording capacity of ca 1000 records
- USB interface (for USB-stick)
- Incoming: 230V / 50Hz
- Outgoing: 8-48V (max. 54A)
- Weight: ca. 16,2 kg

*prolonged cooling time needs to be respected Operating instructions must be observed









- E-fusion welding machine with logging function
- Bar code reading (welding parameters and traceability)
- Outgoing: 8-48 V 80 Amp
- (max.: 110 Amp)

 Dimension:

up to ~ 1.200mm* possible

- with inverter technology
- Recording capacity of ca 1000 records
- USB interface (for USB-stick)
- Bluetooth interface to use the EFS app
- Gewicht: 11,7 kg,



^{*} prolonged cooling time needs to be respected Operating instructions must be observed

Tools and accessories



Description

Socket fusion device d 63 mm

- From d 20 d 63 mm
- With spigot and socket OD 20 63 mm
- Transport box

Item no.

87 3305

€/piece

264,00



Description

Heating sleeve and heating mandrel (Typ B) d 20 Heating sleeve and heating mandrel (Typ B) d 25 Heating sleeve and heating mandrel (Typ B) d 32 Heating sleeve and heating mandrel (Typ B) d 40 Heating sleeve and heating mandrel (Typ B) d 50 Heating sleeve and heating mandrel (Typ B) d 63 Heating sleeve and heating mandrel (Typ B) d 75 Heating sleeve and heating mandrel (Typ B) d 90 Heating sleeve and heating mandrel (Typ B) d 110 Heating sleeve and heating mandrel (Typ B) d 125

Art.-Nr. 600 ...

- silverstone coated
- Heating sleeve and heating mandrel type A on request



Tools and accessories



Description

von d 32 - d 63 SDR 11

Pipe end scraper PES 63 Set from d 32 – d 63 SDR 11 Pipe end scraper PES 63 Set incl. Cordless screwdriver

Pipe end scraper PES 75 Set from d 25 – d 75 SDR 11

Pipe end scraper PES 75 Set incl. Cordless screwdriver from d 25 - d 75 SDR 11

Spare blade for Pipe end scraper PES up to d 75

Item no. 600 ...

87 3020

€/piece

580,00 725,00

740,00 885,00

58,00

- For mechanical processing of the tube surface,
- Robust basic device made of metal,
- Set consisting of basic unit, plastic plug, socket wrench,
 Operating instructions and transport case



Description

Pipe end scraper PES 32, d 32 SDR 11
Pipe end scraper PES 40, d 40 SDR 11
Pipe end scraper PES 50, d 50 SDR 11
Pipe end scraper PES 63, d 63 SDR 11
Pipe end scraper PES 75, d 75 SDR 11
Spare blade for pipe end scraper PES 32 bis d 75

Item no. 600 ...



Item no. 600 ...

€/piece

39,00 63,00 72,00 80,00 99,00 125,00 72,00 99,00 125,00



Description

Bit socket wrench

Plastic plugs d 25 SDR 11
Plastic plugs d 32 SDR 11
Plastic plugs d 40 SDR 11
Plastic plugs d 50 SDR 11
Plastic plugs d 63 SDR 11
Plastic plugs d 75 SDR 11
Plastic plugs d 40 SDR 9
Plastic plugs d 63 SDR 7,4
Plastic plugs d 75 SDR 7,4



Peeling device PES 200 from d 63 (SDR 11) - d 200 mm (SDR 17)

Peeling device PES 315 PEX from d 90 (SDR 11) - d 315 mm (SDR 17) $\,$

Spare blade for PES 200/315/400

87 0523

87 0524PEX

87 0024

618,00 982,00

57,00

- For mechanical processing of the pipe surface,
- Robust basic unit made of metal,
- Scope of delivery: peeling device, spare blade, allen key, transport case.





Description

Rotational scraper 63 Spare blade

- Diameter range: d 25 d 63 mm
- To remove the oxidized layer
- Transport box and spare blade included

Item no. 600 ...

870 517 870 022





Description

Rotational scraper 125 Spare blade

- Diameter range: d 25 d 125 mm
- To remove the oxidized layer
- Transport box and spare blade included

Item no. 600 ...

870 515 870 022 €/piece

700,00 58,00



Description

Pipe clamp d 63 (d 20 - d 63 mm)

Pipe clamp d 110 (d 32 - d 110 mm)

Pipe clamp d 225 (d 110 - d 225 mm)

- 4 point clamping with angular adjustment
- Transport box included

Item no. 600 ...

870501 870503 870500 €/piece

815,00 945,00 1.440,00



Description

Hand scraper with 38 mm blade width Hand sraper with 63 mm blade width Spare blade 38 mm Spare blade 63 mm

Item no. 600 ...

€/piece

18,00 27,00 13,50 16,50



Description

Pipe cutter R 42 (up to d 42) Pipe cutter R 63 (up to d 63) Spare blade for cutter up to d 42 Spare blade for cutter up to d 63

Item no.

€/piece

30,00 113,00 9,60 32,00





Description

Rotational pipe cutter d 20 - d 75 mm Rotational pipe cutter d 50 - d 140mm Rotational pipe cutter d 110 - d 160mm Spare wheel d 20 - d 75mm Spare wheel d 50 - d 140mm Spare wheel d 110 - d 160mm



€/piece

118,00 194,00 245,00 41,00 48,00 48,00



Description

PE cleaning tissue (about 100 tissues)
PE cleaner (0,75l bottle)

Description

Pipemarker (white)

Item no. 600 ...

870020 870021 €/piece

18,00 19,50

Item no. 600 ...

870025

€/piece

6,20



Notes:	





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