

## 3. Radiant Heating/Cooling, Snow and Ice Melting

Product Catalog

## Contents

1. RAUPEX ${ }^{\circledR} \mathrm{O}_{2}$ Barrier Pipe ..... 3.3
2. Radiant Heating Plate Systems ..... 3.5
3. Radiant Heating Panel Systems ..... 3.6
4. Radiant Heating Mat Systems ..... 3.7
5. PRO-BALANCE ${ }^{\circledR}$ Stainless Steel Manifolds ..... 3.9
6. PRO-BALANCE Brass Manifolds ..... 3.13
7. PRO-BALANCE Manifold Accessories ..... 3.18
8. Zone Controls and Thermostats ..... 3.22
9. EVERLOC+ Compression-sleeve System ..... 3.26
10. RAUPEX Compression Nut Fittings ..... 3.33
11. Compression Nut Ball Valves ..... 3.34
12. Copper Manifolds ..... 3.35
13. Installation Accessories ..... 3.36
14. PEX Pipe Installation Tools ..... 3.40
15. Electronic Controls ..... 3.45
16. Mixing Valves ..... 3.47
17. Hydronic Accessories ..... 3.49

## 1. RAUPEX $0_{2}$ barrier pipe

RAUPEX $\mathrm{O}_{2}$ barrier pipe is manufactured using REHAU's high-pressure peroxide method for crosslinked polyethylene (PEXa). RAUPEX $\mathrm{O}_{2}$ barrier pipe has a co-extruded oxygen diffusion barrier that exceeds the strict requirements of DIN 4726. All RAUPEX $\mathrm{O}_{2}$ barrier pipe meets or exceeds the requirements of ASTM F876, CSA B137.5 and PPI TR-3. RAUPEX $\mathrm{O}_{2}$ barrier pipe also complies with the requirements of the CSA B214 installation code for hydronic heating systems. RAUPEX $0_{2}$ barrier pipe is manufactured by REHAU in a plant using a quality management system that is certified to IS0 9001.


| 3/8 in. RAUPEX $0_{2}$ Barrier Pipe |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{aligned} & \text { Uni } \\ & \text { kg } \end{aligned}$ | lb | Minimum Order |
| 136008-500 | $3 / 8 \mathrm{in}$. RAUPEX $\mathrm{O}_{2}$ Barrier Pipe, $500 \mathrm{ft} \mathrm{coil} \mathrm{( } 152.4 \mathrm{~m}$ ) | 500 ft | 10.5 | 23.1 | 1 coil |
| 136008-000 | $3 / 8 \mathrm{in}$. RAUPEX $\mathrm{O}_{2}$ Barrier Pipe, 1000 ft coil ( 304.8 m ) | 1000 ft | 21.0 | 46.2 | 1 coil |





| 1 in. RAUPEX $0_{2}$ Barrier Pipe |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{aligned} & \text { Uni } \\ & \text { kg } \end{aligned}$ |  | Minimum Order |
| 136011-100 | 1 in . RAUPEX $\mathrm{O}_{2}$ Barrier Pipe, 100 ft coil ( 30.5 m ) | 100 ft | 7.9 | 17.5 | 1 coil |
| 136011-500 | 1 in . RAUPEX $\mathrm{O}_{2}$ Barrier Pipe, 500 ft coil ( 152.4 m ) | 500 ft | 39.7 | 87.5 | 1 coil |



| $11 / 2$ in. RAUPEX | $\mathbf{O}_{2}$ Barrier Pipe |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |
| Article No. | Description | Quantity | kg | lb | Order |
| $136293-100$ | $11 / 2$ in. RAUPEX $0_{2}$ Barrier Pipe, 100 ft coil $(30.5 \mathrm{~m})$ | 100 ft | 16.0 | 35.0 | 1 coil |


| 2 in. RAUPEX $\mathbf{O}_{2}$ Barrier Pipe |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |
| Article No. | Description | Quantity | kg | lb | Order |
| $136303-100$ | 2 in. RAUPEX $\mathrm{O}_{2}$ Barrier Pipe, 100 ft coil $(30.5 \mathrm{~m})$ | 100 ft | 27.4 | 60.0 | 1 coil |



## 2. Radiant heating plate systems

Aluminum heat transfer plates are used in joist space installations to enhance heat transfer and improve efficiency. Radiant heating plate systems outperform talon-up joist space construction installations. Plate systems are suitable for both new construction and retrofit residential applications.


RAUPLATE"' Radiant Heating System

|  |  | Nominal Length |  | Package |  | Unit Weight |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | $\mathbf{m}$ | ft | Quantity | kg | Minimum | Order |
| 298926-001 | RAUPLATE Heat Transfer Plate |  |  |  |  |  |  |
|  | For 1/2 in. RAUPEX | 1.2 | 4 | $20 \mathrm{pcs} / \mathrm{box}$ | 0.70 | 1.50 | 1 box |

RAUPLATE heat transfer plates are designed with two pipe channels 8 in. on-center. RAUPLATE is screwed to the underside of the subfloor in the joist space and RAUPEX pipe snaps into the plates.
Plates measure $8.7 \times 47$ in ( $22 \times 119 \mathrm{~cm}$ ).

| Heat Transfer Plates, Heavy Gauge |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Package |  |  | Minimum |
| Article No. | Description | Quantity | g | lb | Order |
| $235962^{+}$ | Heat Transfer Plate, Heavy Gauge for 3/8 in. RAUPEX | $20 \mathrm{pcs} /$ carton | 495 | 1.09 | 1 carton |
| 235972 | Heat Transfer Plate, Heavy Gauge for $1 / 2$ in. RAUPEX | $20 \mathrm{pcs} / \mathrm{carton}$ | 509 | 1.12 | 1 carton |

+This item is not stocked. Lead time may vary. Minimum order quantities may cary.
Aluminum heat transfer plates are screwed into the joist space and RAUPEX pipe to snap into the plates.
Plates measure $3.5 \times 48$ in $(8.9 \times 121.9 \mathrm{~cm})$ with pre-drilled $1 / 8 \mathrm{in}$. holes.

## 3. Radiant heating panel systems

Radiant heating panel systems are installed directly on top of the subfloor, and for some installations in walls or ceilings behind gypsum board.


RAUPANEL ${ }^{\text {M }}$ High-performance Radiant Heating System

|  |  | Package | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | kg | lb | Order |
| 235307 | RAUPANEL (6 ft lengths) | $96 \mathrm{ft} / 16 \mathrm{pcs} / \mathrm{box}$ | 1.73 | 3.80 | 1 box |
| $235327-001$ | RAUPANEL 6 in. Plywood Return Bend (4 returns) | $32 \mathrm{ft} / 8 \mathrm{pcs} / \mathrm{box}$ | 1.82 | 4.00 | 1 box |
| $235337-001$ | RAUPANEL 8 in. Plywood Return Bend (3 returns) | $32 \mathrm{ft} \mathrm{/} \mathrm{8} \mathrm{pcs/box}$ | 2.05 | 4.50 | 1 box |
| $235377-001$ | RAUPANEL 2 in. Plywood Furring Strip | $136 \mathrm{ft} / 34 \mathrm{pcs} / \mathrm{box}$ | 0.45 | 1.00 | 1 box |
| 235387 | Deburring Tool | $10 \mathrm{pcs} / \mathrm{box}$ | 0.02 | 0.05 | 1 |

Furring strips are to be used in conjunction with 8 in. return bends to facilitate proper spacing of RAUPANEL and to provide a nailing surface for the floor covering. Reference the table below for product dimensions and square footage. Follow RAUPANEL System Installation Guide (855.625) for instructions on design and use of this product. RAUPANEL is 5/8 in. thick and designed for use with $3 / 8$ in. RAUPEX $\mathrm{O}_{2}$ barrier pipe.

Table of Dimensions

| Article No. | Dimensions L x W x H | $\mathrm{ft}^{2} / \mathrm{pc}$ | $\mathrm{ft}^{2} / \mathrm{pkg}$ | $\mathrm{m}^{2} / \mathrm{pc}$ | $\mathrm{m}^{2} / \mathrm{pkg}$ |
| :--- | :--- | :---: | :---: | :---: | :---: |
| 235307 | $72 \times 6 \times 5 / 8 \mathrm{in}$. | 3.0 | 48.0 | 0.279 | 4.459 |
| $235327-001$ | $48 \times 8 \times 5 / 8 \mathrm{in}$. | 2.7 | 21.3 | 0.251 | 1.979 |
| $235337-001$ | $48 \times 9 \times 5 / 8 \mathrm{in}$. | 3.0 | 24.0 | 0.279 | 2.230 |
| $235377-001$ | $48 \times 115 / 16 \times 5 / 8 \mathrm{in}$. | 0.7 | 22.7 | 0.065 | 2.110 |



| RAUBOARD ${ }^{\text {TM }}$ Radiant Heating System |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity |  | ight <br> lb | Minimum Order |
| 298896-001 | RAUBOARD Double Groove | 6 pcs/bundle | 2.3 | 5.0 | 1 bundle |
| 298796-001 | RAUBOARD Single Groove | 6 pcs/bundle | 1.1 | 2.5 | 1 bundle |
| 298396-001 | RAUBOARD Return Groove | 6 pcs/bundle | 1.1 | 2.4 | 1 bundle |
| 136549-001 | 10.1 mm RAUPEX $\mathrm{O}_{2}$ Barrier Pipe, $1000 \mathrm{ft} \mathrm{coil} \mathrm{( } 304.8 \mathrm{~m}$ ) | 1000 ft | 11.8 | 26.0 | 1 coil |
| 136549-500 | 10.1 mm RAUPEX $\mathrm{O}_{2}$ Barrier Pipe, $500 \mathrm{ft} \mathrm{coil} \mathrm{( } 152.4 \mathrm{~m}$ ) | 500 ft | 5.9 | 13.0 | 1 coil |
| 200526-001 | 10.1 mm SDR11 Coupling | 10 pcs/box | 0.02 | 0.04 | 1 box |
| 200536-001 | 10.1 mm SDR11 Sleeve | 10 pcs/box | 0.01 | 0.02 | 1 box |
| 200546-001 | 10.1 mm RAUPEX x R-20 Brass Manifold Outlet | 2 pcs/bag | 0.06 | 0.14 | 1 bag |
| 228950-002 | 10.1 mm Polymer Support Bend | 100 pcs/box | 0.02 | 0.06 | 1 box |
| 228396-001 | RAUTO0L K10 Tool Kit | 1 | 2.3 | 5.0 | 1 |

RAUBOARD low-profile heat transfer panels are screwed to the subfloor or wall/ceiling joists, then the 10.1 mm RAUPEX pipe snaps into the groove. A small bead of silicone is applied to the groove before installing the pipe. RAUBOARD panels measure $1 / 2$ in. thick with pipe spacing of 6 in ( 152 mm ) on-center.

## 4. Radiant heating mat systems

RAUMAT ${ }^{T M}$ is a pre-assembled roll of RAUPEX $0_{2}$ barrier pipe intended for radiant heating and cooling systems to be installed in large, open slab areas. RAUMAT is custom designed and built to project-specific requirements. Contact your local REHAU sales office for availability. RAUMAT is custom-made for each project, therefore article numbers, pricing, options and lead times vary.


RAUMAT Pre-assembled Radiant Mat System With $3 / 4$ in. RAUPEX Pipe
Options

| Length | Custom lengths 40 to 250 ft |
| :--- | :--- |
| Width | Custom width up to 6.5 ft |
| Spacing | Custom spacing |
| Pipe | RAUPEX $0_{2}$ barrier $3 / 4 \mathrm{in}$. |
| Circuits | Up to 5 circuits per RAUMAT (equal length) |
| Tails | Customizable per project requirements |
| Supports | PEX rails every 6 ft |

RAUMAT Pre-assembled Radiant Mat System With $5 / 8$ in. RAUPEX Pipe
Options

| Length | Custom lengths 40 to 250 ft |
| :--- | :--- |
| Width | Custom width up to 6.5 ft |
| Spacing | Custom spacing $(1 \mathrm{in} .0 \mathrm{C}$ increments) |
| Pipe | RAUPEX $0_{2}$ barrier $5 / 8 \mathrm{in}$. |
| Circuits | Up to 5 circuits per RAUMAT (equal length) |
| Tails | Customizable per project requirements |
| Supports | PEX rails every 6 ft |

RAUMAT is custom-made for each project, therefore article numbers, pricing, options and lead times vary. Contact your local REHAU sales office for availablity.

## RAUPEX SPEED Hook-and-Loop Radiant System

RAUPEX SPEED hook-and-loop radiant system is used in floors to efficiently and evenly distribute heat/cold from RAUPEX SPEED pipe into the room. The system can be installed in a concrete slab on grade, suspended slab or above suspended wood floor and encased in a thin slab overpour.

| 1/2 in. RAUPEX SPEED $0_{2}$ Barrier Pipe |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity |  | lb | Minimum Order |
| 160950-300 | $1 / 2 \mathrm{in}$. RAUPEX SPEED $\mathrm{O}_{2}$ Barrier Pipe, $300 \mathrm{ft} \mathrm{coil} \mathrm{( } 91.4 \mathrm{~m}$ ) | 300 ft | 7.8 | 17.2 | 1 coil |
| 160950-001 | 1/2 in. RAUPEX SPEED $\mathrm{O}_{2}$ Barrier Pipe, 1,000 ft coil ( 304.8 m ) | 1000 ft | 26.3 | 57.9 | 1 coil |

RAUPEX SPEED $\mathrm{O}_{2}$ barrier pipe includes a hook-and-loop tape for fastening to the RAUPEX SPEED mat or iBoard, without the need for staples, pins or clips.


| RAUPEX SPEED Mat |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight | Minimum |  |
| Article No. | Description | Quantity | kg | lb | Order |
| $316110-100$ | RAUPEX SPEED Mat R, Roll | $161.4 \mathrm{ft}^{2}\left(15 \mathrm{~m}^{2}\right)$ | 11.7 | 25.79 | 1 roll |

The RAUPEX SPEED hook-and-loop mat has an adhesive bottom, allowing it to be installed on different insulation materials and substrates. The loop part of the hook-and-loop system on the top of the mat works with the hook-and-loop tape of the RAUPEX SPEED $\mathrm{O}_{2}$ barrier pipe for fastening without the need for staples, pins or clips.


| RAUPEX SPEED iBoard |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity |  | ght lb | Minimum Order |
| 422069-001 | RAUPEX SPEED iBoard R5 ( $4 \mathrm{ft} \times 8 \mathrm{ft} \times 1.25 \mathrm{in}$ ) | $320 \mathrm{ft}^{2}\left(29.73 \mathrm{~m}^{2}\right)$ | 21.55 | 47.5 | * |
| 422071-001 | RAUPEX SPEED iBoard R10 (4 ft x $8 \mathrm{ft} \times 2.38 \mathrm{in}$.) | $160 \mathrm{ft}^{2}\left(14.86 \mathrm{~m}^{2}\right)$ | 31.98 | 70.5 | * |
| 427469-001 | RAUPEX SPEED iBoard Tape | $2 \mathrm{in}(\mathrm{W}) \times 108 \mathrm{ft}$. (L) | 0.28 | 0.63 | 1 roll |

*Lead times and minimum order quantity vary per project, contact sales office for details.
The RAUPEX SPEED iBoard combines an R-value insulation board with the hook-and-loop fastening system for radiant overpour applications. The hook-and-loop tape on the RAUPEX SPEED pipe fastens to the loop surface of the iBoard without the need for staples, pins or clips. The imprinted grid pattern on the iBoard enables fast and accurate pipe layout. Tape may be used to join or repair iBoards.

| RAUPEX SPEED Door Spreader |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> kg |  | lb |
| $104027-001$ | RAUPEX SPEED Door Spreader With Pipe Guide | 1 | 1.10 | 2.42 | 1 |

The RAUPEX SPEED door spreader with pipe guide aids in the installation of the RAUPEX SPEED hook-and-loop radiant systems by guiding the pipe above the mat or iBoard during the installation process.

| RAUPEX Horizontal Uncoiler |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight | Minimum |  |
| Article No. | Description | Quantity | kg | lb | Order |
| $286151-002$ | RAUPEX Horizontal Uncoiler | 1 | 13 | 28 | 1 |

Uncoiler dispenses RAUPEX pipe horizontally and is capable of holding RAUPEX coils up to 1 in.

## 5. PRO-BALANCE stainless steel manifolds



| Article No. | Stations |  | ength in | Package Quantity | Unit Weight kg lb |  | Minimum Order |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 381101-001 | 1 | 254 | 9.98 | 1 | 2.4 | 5.3 | 1 |
| 381102-001 | 2 | 310 | 12.20 | 1 | 2.8 | 6.2 | 1 |
| 381103-001 | 3 | 365 | 14.37 | 1 | 3.2 | 7.1 | 1 |
| 381104-001 | 4 | 420 | 16.54 | 1 | 3.6 | 8.0 | 1 |
| 381105-001 | 5 | 475 | 18.7 | 1 | 4.0 | 8.9 | 1 |
| 381106-001 | 6 | 530 | 20.87 | 1 | 4.4 | 9.8 | 1 |
| 381107-001 | 7 | 585 | 23.03 | 1 | 4.9 | 10.7 | 1 |
| 381108-001 | 8 | 640 | 25.20 | 1 | 5.2 | 11.6 | 1 |
| 381109-001 | 9 | 695 | 27.36 | 1 | 5.7 | 12.5 | 1 |
| 381110-001 | 10 | 750 | 29.53 | 1 | 6.0 | 13.3 | 1 |
| 381111-001 | 11 | 805 | 31.69 | 1 | 6.5 | 14.3 | 1 |
| 381112-001 | 12 | 860 | 33.86 | 1 | 6.9 | 15.1 | 1 |

Delivered pre-assembled and ready to install. Use with 10.1 mm and $3 / 8,1 / 2,5 / 8$ and $3 / 4$ in. RAUPEX pipe. Compatible with REHAU manifold valve actuator (Art. 260166). Order manifold-to-pipe connectors separately (see R-20 compression-style manifold connections below).

Each PRO-BALANCE 1 in. manifold comes complete with the following:

- 1 in. NPT supply and return manifold isolation valves with gaskets and mini thermometers
- Visual flow gauges/isolation valves (0 to 2 GPM) on stainless steel supply header
- Circuit balancing/isolation valves on stainless steel return header
- Air vent drain valves with gaskets
- Mounting brackets
- Vent key and holder
- Installation instructions
- Manifold circuit chart

Notes:

- Manifold lengths above include the isolation ball valve 2.44 in ( 62 mm ) and the air vent/boiler drain valves 2.24 in ( 57 mm )
- Maximum flow is 2.0 GPM ( $0.13 \mathrm{l} / \mathrm{s}$ ) per circuit; and a total manifold flow of no more than $20 \mathrm{GPM}(1.26 \mathrm{I} / \mathrm{s})$
- Depth of manifold is 3.9 in ( 10.0 cm ) with bracket, valve and mini thermometer installed
- Can be joined to other manifold sections using 1 in. BSPP unions (Art. 316258-002)

RAUPEX Connections for PRO-BALANCE Stainless Steel Manifolds

|  |  | Package Quantity |  |  | Unit Weight <br> Article No. |  | Description | Bag |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Box | Carton | g | lb | Minimum |  |  |  |  |
| Order |  |  |  |  |  |  |  |  |

For use with 1 in. PRO-BALANCE stainless steel manifold. $3 / 8,1 / 2$ and $5 / 8$ in. fittings include insert with 0 -ring, split brass ring and compression nut. $3 / 4 \mathrm{in}$. fitting includes R-20 $\times 1 \mathrm{in}$. bushing, $3 / 4 \mathrm{in}$. insert with 0 -ring, split brass ring and compression nut.

## PRO-BALANCE Stainless Steel Manifold Replacement Flow Gauges



|  | Package | Unit Weight <br> Article No. |  | Description | Minimum <br> Quantity |
| :--- | :--- | :---: | :---: | :---: | :---: |
| $316252-002$ | PRO-BALANCE 1 in. Flow Gauge |  |  |  |  |
|  | Replacement Kit, Nickel Plated | 1 | 85 | 0.19 | 1 |

PRO-BALANCE flow gauge kits can be used to replace flow gauges on the supply side of the PRO-BALANCE stainless steel manifolds and connect directly with a $3 / 8$ in. threaded connection. The replacement flow gauges have an integrated shutoff valve that is manually activated with a common vent key. Install using thread sealant.


Replacement circuit balancing/isolation valve for the return side of the 1 in . PRO-BALANCE stainless steel manifold. Install using thread sealant.

## PRO-BALANCE Stainless Steel Manifold Circuit Isolation Valves

|  |  | Package | Unit Weight |  | Minimum |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Article No. | Description | Quantity | kg | lb | Order |

This nickel plated $1 / 4$ turn ball valve attaches to R - 20 circuit outlets on the supply side of 1 in . PRO-BALANCE stainless steel manifold to allow for complete shut-off. Standard $1 / 4 \mathrm{in}$. vent key (supplied with each manifold) is used to operate the valve. Install flow-stop valves by hand onto R-20 outlets of the manifold. Do not use thread sealant. Thread the valve clockwise until it stops. If necessary, back the valve off to align the valve stem with the front of the manifold. may only be used with $3 / 8,1 / 2$ and $5 / 8 \mathrm{in}$. R-20 outlets.

## NPT Valve Set With Thermometer Housings for PRO-BALANCE 1 in. Stainless Steel Manifolds

|  | Package | Unit Weight |  | Minimum |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Article No. | Description | Quantity | g | lb | Order |
| $316250-002$ | 1 in. NPT Valve Set w/ Thermometer |  |  |  |  |
|  | Housings, Nickel Plated | Set of 2 | 420 | 0.92 | 1 set |

These valves have integrated thermometer housings on each side of the valve bodies. Mini thermometers (Art. 250218) can be set into these housings to give accurate readings of temperatures on both supply and return sides of any PRO-BALANCE 1 in. manifold. Includes gaskets. Mini thermometers are sold separately.


PRO-BALANCE Stainless Steel Manifold Air Vent/Boiler Drain Combination Set

|  | Package | Unit Weight |  | Minimum |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | lb | Order |
| $316257-002$ | 1 in. BSPP Air Vent/Boiler Drain Combination |  |  |  |  |
|  | Set w/ Gaskets, Nickel Plated | 1 set of 2 | 444 | 0.98 | 1 set |

This set includes air vent/boiler drain combination pieces with union nuts and gaskets. Manual air vent opens with $1 / 4 \mathrm{in}$. vent key (supplied with each manifold). Boiler drain ball valve includes male garden hose thread (GHT). Gasketed caps included.


| PRO-BALANCE Stainless Steel Manifold Union Sets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package | Unit Weight |  | Minimum |
|  |  | Quantity | g | lb | Order |
| 316258-002 | 1 in. BSPP Unions w/ Gaskets, Nickel Plated | 1 set of 2 | 300 | 0.60 | 1 set |

For use with 1 in. PRO-BALANCE stainless steel manifolds to connect two or more manifolds together in series. Includes union nuts and gaskets. May be used to extend an installed manifold.

| PRO-BALANCE Stainless Steel Manifold End Caps |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  | Package | Unit Weight |  | Minimum |  |
| Article No. | Description | Quantity | g | Ib | Order |
| $316248-002$ | 1 in. Manifold End Cap w/ Gasket, Nickel Plated | 1 | 100 | 0.22 | 1 |

Can be used to cap off end of any manifold header while eliminating usual end pieces. Includes gasket.

## PRO-BALANCE Stainless Steel Manifold BSPP $90^{\circ}$ Angle Pieces



|  | Package | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | lb | Order |
| $316249-002$ | 1 in. BSPP $90^{\circ}$ Angle Piece w/ Gasket, Nickel Plated | 1 | 343 | 0.76 | 1 |

For 1 in. PRO-BALANCE stainless steel manifolds. Includes union nut and gasket. Can be used to install manifold isolation valves at a right angle to manifold.


| PRO-BALANCE Blind Plugs |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
|  |  |  |  |  |  |
| Article No. | Description | Package | Unit Weight |  | Minimum |
| $298186-001$ | Blind Plug 3/8 in. BSPP, Nickel Plated | Quantity | g | lb | Order |

PRO-BALANCE blind plugs are nickel-plated brass plugs with an EPDM 0 -ring and can be used in place of the PRO-BALANCE flow gauges on the supply side of the PRO-BALANCE stainless steel manifolds. Install using thread sealant.

| PRO-BALANCE Manifold Protective Caps |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> g |  | Minimum <br> lb |
| $321531-100$ | PRO-BALANCE Protective Cap (White) | 1 | 3.6 | 0.01 | 1 |

## 6. PRO-BALANCE brass manifolds



| PRO-BALANCE $\mathbf{1}$ in. Brass Manifold With Gauges |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Stations | Manifold Length <br> mm <br> in |  | Package <br> Quantity | Unit Weight <br> kg <br> lb | Minimum <br> Order |  |
| 240021-100 | 2 | 310 | 12.20 | 1 | 2.8 | 6.2 | 1 |
| $240031-100$ | 3 | 365 | 14.37 | 1 | 3.2 | 7.1 | 1 |
| $240041-100$ | 4 | 420 | 16.54 | 1 | 3.6 | 8.0 | 1 |
| $240051-100$ | 5 | 475 | 18.70 | 1 | 4.0 | 8.9 | 1 |
| $240061-100$ | 6 | 530 | 20.87 | 1 | 4.4 | 9.8 | 1 |
| $240071-100$ | 7 | 585 | 23.03 | 1 | 4.9 | 10.7 | 1 |
| $240081-100$ | 8 | 640 | 25.20 | 1 | 5.2 | 11.6 | 1 |
| $240091-100$ | 9 | 695 | 27.36 | 1 | 5.7 | 12.5 | 1 |
| $240101-100$ | 10 | 750 | 29.53 | 1 | 6.0 | 13.3 | 1 |
| $240111-100$ | 11 | 805 | 31.69 | 1 | 6.5 | 14.3 | 1 |
| $240121-100$ | 12 | 860 | 33.86 | 1 | 6.9 | 15.1 | 1 |

Delivered pre-assembled and ready to install. Use with 10.1 mm and $3 / 8,1 / 2,5 / 8$ and $3 / 4 \mathrm{in}$. RAUPEX pipe. Compatible with REHAU manifold valve actuator (Art. 20166). Order manifold-to-pipe connectors separately (see R-20 compression-style manifold connections.

Each PRO-BALANCE 1 in. manifold comes complete with the following:

- 1 in. NPT supply and return manifold isolation valves with gaskets and mini thermometers
- Visual flow gauges/isolation valves ( 0 to 2 GPM) on brass supply header
- Circuit balancing/isolation valves on brass return header
- Mounting brackets
- Air vent drain valves with gaskets
- Vent keys
- Four drywall screws and four sheet metal screws
- Installation instructions
- Manifold circuit chart

Notes:

- Manifold lengths above include the isolation ball valve 2.44 in ( 62 mm ) and the air vent/boiler drain valves 2.24 in ( 57 mm )
- Maximum flow is 2.0 GPM $(0.13 \mathrm{l} / \mathrm{s})$ per circuit; and a total manifold flow of no more than $20 \mathrm{GPM}(1.26 \mathrm{l} / \mathrm{s})$
- Depth of manifold is $3.9 \mathrm{in}(10.0 \mathrm{~cm})$ with bracket, valve and mini thermometer installed
- Can be joined to other manifold sections using 1 in. BSPP unions (Art. 260407) or 1 in . BSPF $\times 1$ in. BSPF $\times 1$ 1/4 in. BSPM union tee (Art. 250227-001.


PRO-BALANCE $11 / 4$ in. Brass Manifold With Gauges

|  | $\begin{array}{c}\text { Manifold Length } \\ \text { mm }\end{array}$ |  | $\begin{array}{c}\text { Package } \\ \text { Quantity }\end{array}$ | $\begin{array}{c}\text { Unit Weight } \\ \mathrm{kg}\end{array}$ |  | $\begin{array}{c}\text { Minimum } \\ \text { Ib }\end{array}$ | Order |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |$]$

Delivered pre-assembled and ready to install. Use with $3 / 8,1 / 2,5 / 8$ and $3 / 4 \mathrm{in}$. RAUPEX pipe. Compatible with Manifold Valve Actuator (Art. 260166). Order manifold-to-pipe connectors separately (see R-20 compression-style manifold connections)

Each manifold comes complete with:

- Installation instructions
- $11 / 4 \mathrm{in}$. NPT supply and return manifold isolation ball valves with thermometer sockets and flat gaskets
- Two 1 1/4 in. BSPP brass end caps with gaskets
- Visual flow gauges (0 to 4 GPM) on supply side
- Circuit balancing/isolation valves on return side
- Mounting brackets
- Four drywall screws
- Vent key
- Manifold circuit chart

Notes:

- Mini Thermometers (Art. 250218) sold separately
- Manifold lengths above include the isolation ball valve 3.86 in ( 98 mm )
- Maximum flow is $4.0 \mathrm{GPM}(0.25 \mathrm{I} / \mathrm{s})$ per circuit; $40 \mathrm{GPM}(2.52 \mathrm{I} / \mathrm{s})$ total
- Depth of manifold is 4.50 in ( 11.4 cm ) with bracket, valve and mini thermometer installed
- Can be joined to other manifold sections using $11 / 4 \mathrm{in}$. BSPP unions (Art. 281971-001) or $11 / 4 \mathrm{in}$. BSPF $\times 11 / 4 \mathrm{in}$. BSPF $\times$ $11 / 4$ in. BSPM Union Tee (Art. 250228-001).

|  |  | Package Quantity |  |  | Unit Weight |  | Minimum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Bag | Box | Carton | g | lb | Order |
| 267507-101 | 3/8 in. RAUPEX x |  |  |  |  |  |  |
|  | R-20 Brass Manifold Outlet | 2 | 40 | 240 | 76 | 0.17 | $1 \mathrm{bag} / 2$ connectors |
| 261007-101 | 1/2 in. RAUPEX x |  |  |  |  |  |  |
|  | R-20 Brass Manifold Outlet | 2 | 40 | 240 | 73 | 0.16 | $1 \mathrm{bag} / 2$ connectors |
| 267557-101 | 5/8 in. RAUPEX x |  |  |  |  |  |  |
|  | R-20 Brass Manifold Outlet | 2 | 40 | 240 | 73 | 0.16 | $1 \mathrm{bag} / 2$ connectors |
| 267007-101 | 3/4 in. RAUPEX $x$ |  |  |  |  |  |  |
|  | R-20 Brass Manifold Outlet | 2 | 24 | 144 | 132 | 0.29 | $1 \mathrm{bag} / 2$ connectors |
| 267007-100 | EPDM 0-ring for RAUPEX |  |  |  |  |  |  |
|  | Insert to R-20 Connection | 10 | 500 | n/a | 0.91 | 0.002 | $1 \mathrm{bag} / 10$ rings |

For use with 1 and $11 / 4 \mathrm{in}$. PRO-BALANCE manifolds. $3 / 8,1 / 2$ and $5 / 8$ in. fittings include insert with 0 -ring, split brass ring and compression nut. $3 / 4$ in. fitting includes R-20 $\times 1$ in. bushing, $3 / 4$ in. insert with 0 -ring, split brass ring and compression nut.

PRO-BALANCE Brass Manifold Replacement Flow Gauges



Replacement circuit balancing/isolation valve for the return side of the 1 and $11 / 4 \mathrm{in}$. PRO-BALANCE manifold. Install using thread sealant.


PRO-BALANCE Brass Manifold Flow-Stop Circuit Valves

|  |  | Package | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | kg | lb | Order |
| 250224 | PRO-BALANCE Flow-stop Circuit Valve | $5 /$ box | 0.12 | 0.26 | 1 box |

This brass $1 / 4$ turn ball valve attaches to R-20 circuit outlets on the supply side of 1 and $11 / 4 \mathrm{in}$. PRO-BALANCE manifolds to allow for complete shut-off. Standard $1 / 4 \mathrm{in}$. vent key (supplied with each manifold) is used to operate the valve. Install flow-stop valves by hand onto R-20 outlets of the PRO-BALANCE 1 in. manifold. Do not use thread sealant. Thread the valve clockwise until it stops. If necessary, back the valve off to align the valve stem with the front of the manifold. May only be used with $3 / 8,1 / 2$ and 5/8 in. R-20 outlets.


NPT Valve Set With Thermometer Housings for PRO-BALANCE 1 in. Brass Manifolds

|  | Pescription | Package |  | Unit Weight |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Article No. | Quantity | g | Ib | Order |  |
| 250216 | 1 in. NPT Valve Set w/ Thermometer Housings | Set of 2 | 420 | 0.92 | 1 set |

These valves have integrated thermometer housings on each side of the valve bodies. Mini Thermometers (Art. 250218) can be set into these housings to give accurate readings of temperatures on both supply and return sides of any PRO-BALANCE 1 in. manifold. Includes gaskets. Mini thermometers are sold separately.



These valves have integrated thermometer housings on each side of the valve bodies. Mini thermometers (Art. 250218) can be set into these housings to give accurate readings of temperatures on both supply and return sides of any PRO-BALANCE $11 / 4$ in. manifold. Includes gaskets. Mini thermometers are sold separately.

| PRO-BALANCE Brass Manifold Air Vent/Boiler Drain Combination Sets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\mathrm{g}$ |  | Minimum Order |
| 250226 | 1 in. BSPP Air Vent/Boiler Drain Combination Set w/ Gaskets | 1 set of 2 | 444 | 0.98 | 1 set |

This set includes air vent/boiler drain combination pieces with union nuts and gaskets. Manual air vent opens with $1 / 4 \mathrm{in}$. vent key (supplied with each manifold). Boiler drain ball valve includes male garden hose thread (GHT) for convenient connections. Gasketed caps included.


| PRO-BALANCE Brass Manifold Automatic Air Vents |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  | Package | Unit Weight |  | Minimum |
| Article No. | Description | Quantity | g | lb | Order |
| 250212 | Automatic Air Vent $3 / 8$ in. BSPP | 1 | 142 | 0.31 | 1 |

For 1 and 1 1/4 in. PRO-BALANCE manifolds. Can be used to replace manual air vent on air vent/boiler drain pieces (Art. 250226) to allow automatic elimination of entrained air in a hydronic system.


| PRO-BALANCE Brass Manifold Union Sets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package | Unit Weight |  | Minimum |
|  |  | Quantity | g | lb | Order |
| 260407 | 1 in. BSPP Unions w/ Gaskets | 1 set of 2 | 300 | 0.60 | 1 set |
| 281971-001 | $11 / 4$ in. BSPP Unions w/ Gaskets | 1 set of 2 | 220 | 0.49 | 1 set |

For use with 1 and 1 1/4 in. PRO-BALANCE manifolds to connect two or more manifolds together in series. Includes union nuts and gaskets. May be used to extend an installed manifold.

## PRO-BALANCE $11 / 4$ in. Brass Manifold Adapter Fittings



|  |  | Package | Unit Weight |  | Minimum |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Article No. | Description | Quantity | g | lb | Order |
| $298986-001$ | $11 / 4$ in. BSPF $\times 1$ in. BSPM Adapter | 1 set of 2 | 129 | 0.28 | 1 set |

For use with PRO-BALANCE $11 / 4 \mathrm{in}$. brass manifolds to transition $11 / 4 \mathrm{in}$. BSPF x 1 in. BSPM in order to use air vent/boiler drain combination set (Art. 250226).

## PRO-BALANCE Brass Manifold End Caps

|  |  |  | Package | Unit Weight |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | Ib | Order |
| 250213 | 1 in. Manifold End Cap w/ Gasket | 1 | 100 | 0.22 | 1 |
| $281951-001$ | $11 / 4$ in. Manifold End Cap w/ Gasket | 1 | 100 | 0.22 | 1 |

Can be used to cap off end of any manifold header while eliminating usual end pieces. Includes gasket.

PRO-BALANCE Brass Manifold BSPP $90^{\circ}$ Angle Pieces

|  | Package | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | Ib | Order |
| 250214 | 1 in. BSPP $90^{\circ}$ Angle Piece w/ Gasket | 1 | 343 | 0.76 | 1 |
| $281981-001$ | $11 / 4$ in. BSPP $90^{\circ}$ Angle Piece $w /$ Gasket | 1 | 418 | 0.92 | 1 |

For 1 and 1 1/4 in. PRO-BALANCE manifolds. Includes union nut and gasket. Can be used to install manifold isolation valves at a right angle to manifold.

| PRO-BALANCE Blind Plugs |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |
| Article No. | Description | Quantity | g | Ib | Order |
| $298186-001$ | Blind Plug $3 / 8$ in. BSPP, Nickel Plated | 1 | 17 | 0.04 | 1 |

PRO-BALANCE blind plugs are nickel-plated brass plugs with and EPDM 0-ring and can be used in place of the PRO-BALANCE 1 and $11 / 4 \mathrm{in}$. flow gauges on the supply side of the PRO-BALANCE brass manifolds. Install using thread sealant.

| PRO-BALANCE Manifold Protective Caps |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> g |  | Minimum <br> lb |
| $298996-100$ | PRO-BALANCE Protective Cap (Blue) | 1 | 3.6 | 0.01 | 1 |

## 7. PRO-BALANCE manifold accessories



| PRO-BALANCE Manifold Extension Kits |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |
| Article No. | Description | Quantity | kg | lb | Order |
| $250225-100$ | Extension Kit for PRO-BALANCE Manifolds | 1 | 1.0 | 2.2 | 1 |

Used to add a circuit to an existing PRO-BALANCE 1 in. manifold. The extension kit includes a supply section with a visual flow gauge, a return section with a circuit balancing/isolation valve and two gaskets.

| PRO-BALANCE Pressure Differential Bypass Modules |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> kg | Minimum <br> Ib | Order |
| $281541-001$ | PRO-BALANCE Pressure Differential Bypass Module | 1 | 1.3 | 2.8 | 1 |

This modular accessory connects directly to PRO-BALANCE manifold. Normally, a constant speed circulator is sized assuming that all circuits in a zone valve system may be open. The pressure differential bypass module provides a means to control the excess flow (velocity) that would otherwise occur when actuators close. Installation of this module onto the 1 in . PRO-BALANCE manifolds creates an automatically regulated flow path such that operating zone circuits do not see unnecessarily high flow.

| PRO-BALANCE Manifold Flow Setter Valves |  |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |  |
| Article No. | Description | Quantity | g | lb | Order |  |

PRO-BALANCE flow setter valves are used to set flow to PRO-BALANCE 1 in. manifolds and can be installed in-line into any pipe feeding a manifold. This is ideal when multiple manifolds are fed from a single circulator and flow needs to be set correctly to each. PRO-BALANCE flow setter valves are also used in variable speed injection pump mixing systems to set the flow through the injection loop.

PRO-BALANCE flow setter valves are supplied with two gaskets and adapters converting to 1 in . MPT.


| PRO-BALANCE Mixing Modules |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package | Unit Weight |  | Minimum |
| Quantity | kg | lb | Order |  |  |
| $281501-001$ | PRO-BALANCE Mixing Module | 1 | 4.10 | 9 | 1 |

Intended for small radiant heating applications using a fixed "set point" temperature supply. Designed to fit directly to the left or right of the PRO-BALANCE manifold. The supply temperature to the manifold may be adjusted between 68 and $158^{\circ} \mathrm{F}(20$ and $70^{\circ} \mathrm{C}$ ), by means of temperature controlled injection valve. The injection valve has features that can limit the manual adjustment of the valve to prevent tampering and/or over-heating. The module pump would be typically energized by a room thermostat via a relay. The relay could be energized by a thermostat or via the end of the actuator of one of the REHAU electronic boxes.

Specifications:

- Max. acceptable working temperature/pressure:
- Pump:
$176^{\circ} \mathrm{F}\left(80^{\circ} \mathrm{C}\right)$ / 87 psi (6 bar)
Grundfos UP 15-58-130 mm 1 in . BSPM connections; 3-speed cast iron "SUPERBRUTE"; Integral check valve; 115 VAC, 2 pole, single phase; Flow range: 0 to 17.5 US GPM; Head range: 0 to 19 ft

| PRO-BALANCE Manifold Circuit Outlet Caps |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  | Package | Unit Weight |  | Minimum |  |
| Article No. | Description | Quantity | g | lb | Order |
| $250209-C$ | R-20 Circuit Outlet Cap w/ Gasket | 1 | 28 | 0.07 | 1 |

Circuit outlet cap is used to cap off unused outlets on any 1 and $11 / 4$ in. PRO-BALANCE manifold. Includes gasket.


| PRO-BALANCE Manifold Union Tee Sets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{aligned} & \hline \text { Uni } \\ & \text { kg } \end{aligned}$ |  | Minimum Order |
| 250227-001 | 1 in. BSPP Manifold Union Tee Set w/ Gaskets | 1 set of 2 | 0.60 | 1.32 | 1 set |
| 250228-001 | $11 / 4$ in. BSPP Manifold Union Tee Set w/ Gaskets | 1 set of 2 | 1.50 | 3.30 | 1 set |

Male thread connections for Manifold Union Tee Sets are $11 / 4 \mathrm{in}$. BSPM. Sets are supplied with gaskets.


| PRO-BALANCE Manifold Mini Thermometers |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{aligned} & \text { Uni } \\ & \mathrm{g} \end{aligned}$ |  | Minimum Order |
| 250218 | Mini Thermometer | 1 | 24 | 0.05 | 1 |

Mini thermometers can be set into the housings on $11 / 4$ or 1 in. NPT valves with thermometer housings to give accurate readings of temperatures on both supply and return sides of any PRO-BALANCE manifold (for use only with these valves). Thermometers read from 40 to $200^{\circ} \mathrm{F}$ and 0 to $100^{\circ} \mathrm{C}$. Valves sold separately.


| PRO-BALANCE Manifold Gaskets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity |  | $\begin{gathered} \text { eight } \\ \text { Ib } \end{gathered}$ | Minimum Order |
| 250203-G | Fiber Gasket for 1 in. Manifold Valve | 1 | 0.91 | 0.002 | 1 |
| 281811-001 | Fiber Gasket for $11 / 4$ in. Manifold Valve | 1 | 1.36 | 0.003 | 1 |
| 327714-001 | Rubber Gasket for 1 in. Manifold Valve | 1 | 1.36 | 0.003 | 1 |
| 327715-001 | Rubber Gasket for $11 / 4$ in. Manifold Valve | 1 | 2.27 | 0.005 | 1 |


| PRO-BALANCE Manifold Brackets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity |  |  | Minimum Order |
| 261386 | $11 / 4$ in. Steel Manifold Brackets | Set of 2 | 0.45 | 1.0 | 1 set |
| 261396 | $11 / 2$ in. Steel Manifold Brackets | Set of 2 | 0.50 | 1.1 | 1 set |

Steel manifold brackets are for use with PRO-BALANCE 1 in. and $11 / 4$ in. manifolds


PRO-BALANCE White Surface Mount Manifold Cabinets

|  |  | Typical Station <br> Configuration |  | Package <br> Quantity | Unit Weight <br> kg | Minimum <br> Ib |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Order |  |  |  |  |

PRO-BALANCE manifold cabinets for surface installations. Cabinets are made from galvanized steel with basic white powder coat finish (RAL 9016 / Pantone 705). Internal brackets allow for mounting of PRO-BALANCE 1 and $1 / 4 \mathrm{in}$. manifolds. Removable coverplate below door extends cabinet opening to floor (27 in / 69 cm ). Steel door includes cam latch. Keyed locks can be added separately, see (Art. 217688-001)

## PRO-BALANCE Stainless Steel Surface Mount Manifold Cabinets

| Article No. | Description | Typical Station <br> Configuration | Package <br> Quantity | Unit Weight <br> kg |  | Minimum <br> Order |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| $316853-512^{+}$ | Stainless Surface Mount Manifold Cabinet 16W | Up to 3 | 1 | 12.5 | 27.6 | 1 |
| $316854-512^{+}$ | Stainless Surface Mount Manifold Cabinet 20W | Up To 5 | 1 | 16.1 | 35.5 | 1 |
| $316855-512^{+}$ | Stainless Surface Mount Manifold Cabinet 28W | Up to 8 | 1 | 19.1 | 42.1 | 1 |
| $316856-512^{+}$ | Stainless Surface Mount Manifold Cabinet 36W | Up to 11 | 1 | 22.7 | 50.0 | 1 |
| $316857-512^{+}$ | Stainless Surface Mount Manifold Cabinet 44W | Up to 12 | 1 | 23.9 | 52.7 | 1 |
| $316858-512^{+}$ | Stainless Surface Mount Manifold Cabinet 50W | Up to 12 | 1 | 26.8 | 59.1 | 1 |

+ This item is not stocked. Lead times may vary.
PRO-BALANCE manifold cabinets for surface installations. Cabinets are made from 304 stainless. Internal brackets allow for mounting of PRO-BALANCE 1 and $1 / 4$ in. manifolds. Removable coverplate below door extends cabinet opening to floor ( $27 \mathrm{in} / 69 \mathrm{~cm}$ ). Steel door includes cam latch. Keyed locks can be added separately, see (Art. 217688-001)


| PRO-BALANCE White Flush Mount Manifold Cabinets |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :--- | :---: | :---: |
| Article No. | Description | Typical Station <br> Configuration | Package <br> Quantity | Unit Weight <br> kg <br> lb | Minimum <br> Order |  |
| $345400-512$ | White Flush Mount Manifold Cabinet 16W | Up to 3 | 1 | 13.7 | 30.2 | 1 |
| $345410-512$ | White Flush Mount Manifold Cabinet 20W | Up to 5 | 1 | 17.4 | 38.4 | 1 |
| $345420-512$ | White Flush Mount Manifold Cabinet 28W | Up to 8 | 1 | 20.3 | 44.8 | 1 |
| $345430-512$ | White Flush Mount Manifold Cabinet 36W | Up to 11 | 1 | 23.2 | 51.1 | 1 |
| $345440-512$ | White Flush Mount Manifold Cabinet 44W | Up to 12 | 1 | 26.6 | 58.6 | 1 |
| $345450-512$ | White Flush Mount Manifold Cabinet 50W | Up to 12 | 1 | 30.1 | 66.4 | 1 |

PRO-BALANCE manifold cabinets for flush installation. The cabinets are made from galvanized steel and the frame/door assembly is basic white powder coat finish (RAL 9016 / Pantone 705). Internal brackets allow for mounting of PRO-BALANCE manifolds. Pipe knockouts on both sides allow for pipe connections to the manifold. Cabinet has adjustable legs ( $0-5.7 \mathrm{in} / 0-15 \mathrm{~cm}$ ) and screed coverplate (sold separately) to stand the cabinet on the floor with an existing opening. Legs may be removed and the enclosure can be mounted in the wall cavity. The frame/door assembly is adjustable to account for the thickness of the gypsum or other wall coverings ( 0-1.5 in / 0-4 cm). Steel door includes cam latch. Keyed locks can be added separately, see (Art. 217688-001)

PRO-BALANCE White Flush Mount Manifold Cabinet Screed Plates


| Article No. | Description | Package | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Quantity | kg | Ib | Order |  |  |
| 217637-001 | Screed Coverplate for White Flush Cabinet 16W | 1 | 0.7 | 1.5 | 1 |
| $217642-001$ | Screed Coverplate for White Flush Cabinet 20W | 1 | 0.8 | 1.8 | 1 |
| $217647-001$ | Screed Coverplate for White Flush Cabinet 28W | 1 | 1.1 | 2.4 | 1 |
| $217652-001$ | Screed Coverplate for White Flush Cabinet 36W | 1 | 1.4 | 3.0 | 1 |
| $217657-001$ | Screed Coverplate for White Flush Cabinet 44W | 1 | 1.6 | 3.6 | 1 |
| $217662-001$ | Screed Coverplate for White Flush Cabinet 50W | 1 | 1.8 | 4.1 | 1 |

Manifold cabinet screed coverplate used to finish opening for flush mounted cabinets when installed standing on the floor.

| PRO-BALANCE Manifold Cabinet Locks |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Mounting | Unit Weight | Minimum |  |
| Hole | g | Ib | Order |  |  |
| $217688-001$ | Keyed Lock for 3XXXXX Manifold Cabinets | 19 mm square | 41 | 0.09 | 1 set |
| $298606-001$ | Keyed Lock for 2XXXXX Manifold Cabinets | $15 \times 18 \mathrm{~mm}$ double-D | 41 | 0.09 | 1 set |

Manifold cabinet lock with two keys can be used to replace the pre-installed clip-locks on all manifold cabinets.

## 8. Zone controls and thermostats



Manifold Actuator Controls- Wiring Junction Box with Transformers

|  | Package | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | kg | Ib | Order |
| $298276-001$ | 4 Manifold Actuator Control | 1 | 2.45 | 5.45 | 1 |
| $298286-001$ | 6 Manifold Actuator Control | 1 | 2.68 | 5.87 | 1 |

The REHAU manifold actuator controls are designed to simplify the wiring process. Easy to follow PC board and secure screw terminal layout eliminates problems caused by incorrect wiring. External indicator lights confirm operation sequence and diagnostic feedback. The unit includes two built-in 40 VA transformers. Extra fuses provided.



The REHAU zone pump relay controls are designed to simplify the wiring process. Easy to follow PC board and secure screw terminal layout eliminates problems caused by incorrect wiring. External indicator lights confirm operation sequence and diagnostic feedback. Each unit includes a 15 VA transformer ready to power thermostats. Relays are individually fuse protected. Two spare fuses built-in.

| Zone Control Modules |  |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> kg |  | Minimum |  |
| $243047-001$ | Zone Control, 4 Zone Module | 1 | 0.45 | 1.0 | 1 |  |
| $243077-001^{+}$ | Zone Control, 6 Zone Module | 1 | 0.56 | 1.2 | 1 |  |

+This item is not stocked. Lead times may vary.
The zone control module provides a convenient low-voltage wiring panel for thermostats and manifold valve actuators. The zone control module is for use with REHAU thermostats (Art. 236477-001, 236487-001, 398022-001 and 398023-001) and manifold valve actuators (Art. 260166, 260167).

The zone control module may control up to four zones (thermostats), with up to eight actuators (maximum two per zone). Each zone has a terminal for end-switch wires, provided on REHAU manifold valve actuators, to operate circulator pumps, boiler, etc. (through a separate low-voltage relay). For more than four zones (thermostats), additional modules can be connected using standard wire.

| Dual Sensing Dial Thermostats |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{aligned} & \text { Un } \\ & \mathrm{g} \end{aligned}$ |  | Minimum Order |
| 236477-001 | Dual Sensing Dial Thermostat | 1 | 84 | 0.185 | 1 |

The display on this 3-wire thermostat is a simple easy-to-use dial with a red LED that is lit when there is a call for heat. With the optional floor sensor, this thermostat can regulate either the floor or the room temperature or both, in which case the floor sensor is used as a temperature limiter, either high or low limit. This thermostat also comes with both ${ }^{\circ} \mathrm{F}$ and ${ }^{\circ} \mathrm{C}$ dials.

This thermostat has a 4x DIP switch which allows for limited programming and system configuration. This includes setting high and low floor temperature limits and allowing the thermostat to operate as a simple on/off switch or with PWM anticipation logic.

This thermostat can directly control up to four manifold valve actuators (Art. 260166), either independently or when used with REHAU electronic controls. The thermostat may also be used to control relays and other low voltage controls. This thermostat uses silent operation electronic triac output. 18 AWG or similar wire is recommended for all 24 VAC wiring.

Notes:

- Floor/slab sensor requires two additional wires-from slab sensor to thermostat
- Daily programming is not offered on this thermostat
- Requires 24 VAC power source
- For optional floor sensor use Art. 236497-001


| Dual Sensing Digital Thermostats |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
|  |  |  |  |  |  |
| Article No. | Description | Package | Unit Weight |  | Minimum |
| $236487-002$ | Dual Sensing Digital Thermostat | Quantity | g | lb | Order |

This 3-wire thermostat offers system set-up capabilities with simple, easy-to-use menus. There is a reduced operating mode which may be used for nighttime and vacation periods. With the optional floor sensor this thermostat can regulate either the floor or the room temperature or both. In that case the floor sensor is used as a temperature limiter, either high or low limit. Additional features include pump exercise, ${ }^{\circ} \mathrm{F}$ or ${ }^{\circ} \mathrm{C}$ capabilities and air/floor priority.

This thermostat can directly control up to four manifold valve actuators (Art. 260166), either independently or when used with REHAU electronic controls. Thermostat may also be used to control relays and other low voltage controls. This thermostat uses silent operation electronic triac output. 18 AWG or similar wire is recommended for all 24 VAC wiring.

Notes:

- Floor/slab sensor requires two additional wires-from slab sensor to thermostat
- Requires 24 VAC power source
- For optional floor sensor use Art. 236497-001

| 10K Floor Sensors |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Article No. | Description | Package | Unit Weight |  | Minimum |
| $236497-001$ | 10K Floor Sensor $(9.8 \mathrm{ft} / 3 \mathrm{~m})$ | Quantity | g | lb | Order |

Optional floor sensor for dual sensing thermostats. To be used only with Dual Sensing Dial Thermostat (Art. 236477-001) or Dual Sensing Digital Thermostat (Art. 236487-001).


Single-Stage Non-programmable Radiant Heating Thermostats With Floor Sensor

|  | Package | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | kg | lb | Order |
| $398022-001^{+}$ | Single-stage Non-programmable RFH Thermostat (519) | 1 | 0.27 | 0.60 | 1 |

+ This item is not stocked. Lead times may vary.
Single-stage non-programmable radiant heating thermostat with floor sensor is designed specifically to control hydronic radiant heating zones using pulse width modulation (PWM) technology. Simple up and down buttons and a display with large type make this thermostat easy to read and use. Included slab sensor measures radiant floor temperature to protect the floor from overheating and to enhance comfort.

The thermostat requires 24 VAC power supply and can be used to directly control up to seven REHAU manifold actuators (Art. 260166,260167 ). This thermostat can also be used with REHAU zone controls. 4-conductor 18 AWG or similar wire is recommended for all 24 VAC wiring.


|  |  | Package |  |  | Minimum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | kg | lb | Order |
| 398023-001 | Two-stage Programmable RFH Thermostat (521) | 1 | 0.27 | 0.60 | 1 |

Two-stage programmable radiant heating thermostat offers three modes of operation: one stage of heating, one stage of heating and one stage of cooling with fan, or two stages of heating with fan. Included slab sensor measures radiant floor temperature to protect the floor from overheating and to enhance comfort. The programmable schedule supports either a 7-day or 24-hour schedule with 2 or 4 events per day. A permanent temperature hold button overrides the programmable schedule.

The thermostat requires 24 VAC power supply and can be used to directly control up to seven REHAU manifold actuators (Art. 260166,260167 ). This thermostat can also be used with REHAU zone controls. 4-conductor 18 AWG or similar wire is recommended for all 24 VAC wiring.


| Accessories for Digital Thermostats |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Article No. | Description | Package | Unit Weight |  | Minimum |
| 236397 | Qloor Sensor for Digital Thermostat | 1 | 26 | 0.06 | 1 |
| $315837-001^{+}$ | Adapter Plate for Thermostats (519)(521) | 1 | 50 | 0.10 | 1 |

+ This item is not stocked. Lead times may vary.
The floor sensor (Art. 236397) can be used for floor warming applications and/or to help limit (maximum and/or minimum) floor temperatures. Sensor is completely encased in a protective jacket and can be encased in concrete (it is recommended to slide sensor through a short protective conduit where the wires enter/exit the concrete or gypsum cement). Sensor comes with 10 ft $(3 \mathrm{~m})$ of 2-conductor wire.

The Adaptor Plate (Art. 315837-001) covers the paint ring left behind when replacing other thermostats, so that no patching or painting the wall is required. The plate also allows the thermostat to be installed onto a single-gang electrical box and includes screws for mounting the adaptor plate and the device that attaches to it. This adaptor is compatible with thermostats Art. 398022-001 and Art. 398023-001.

## Flush Mount Indoor Sensors



4-wire Manifold Valve Actuator for PRO-BALANCE Manifolds


|  |  | Package | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | lb | Order |
| 260166 | 4-wire Manifold Valve Actuator | 1 | 131 | 0.29 | 1 |

The 4-wire manifold valve actuator is used to open and close circuit valves on the 1 and $11 / 4 \mathrm{in}$. PRO-BALANCE manifolds. Use REHAU thermostats to control actuators directly, or connect through REHAU electronic controls.

Features and specifications:

- Gray position indicator provides visual verification of the actuator's position. When the actuator is off and closed, the gray indicator is flush with the top of the actuator. When the actuator is on and open, the gray indicator will rise out of the top of the actuator and be visible from the side.
- Red pull-out tab is provided to allow easy installation onto the manifold. After installation, remove red tab.
- A dry-contact end switch is built into the actuator. This end switch can be used to operate 24 VAC ( 2 amps max.) relays for pumps and other devices and can be wired so that pumps turn on only when actuator is fully open.
- If required, connect the green end switch wires to a suitable 24 VAC-powered relay to activate a device to be operated by the actuator's end switch or connect these wires directly into an appropriate zone control module.
- 24 VAC "thermal motor" heating element melts a wax cartridge, allowing the actuator to open when there is a call for heat (power on). When the power is off, the wax cools and closes the valve (normally closed). Operation takes 3-4 minutes.
- 4 wires: blue/brown - apply 24 VAC power; green (2) - end switch. Length -40 in ( 100 cm ).
- Ambient operating temperature range of 32 to $140^{\circ} \mathrm{F}\left(0\right.$ to $\left.60^{\circ} \mathrm{C}\right)$.
- Low power draw: approximately 2 VA in operation. Maximum 4.5 VA when first powered. Ensure transformer has sufficient power (VA) to operate all actuators.

| RA Two-way Zone Valves |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Cv | Package Quantity |  | ght <br> lb | Minimum Order |
| 260027 | $3 / 4 \mathrm{in}$. FPT $\times 3 / 4$ in. MPT RA Valve | 2.7 | 1 | 0.44 | 0.97 | 1 |
| 260037 | 1 in . FPT $\times 1$ in. MPT RA Valve | 2.8 | 1 | 0.67 | 1.48 | 1 |

Build your own balancing manifold with these attachments for copper manifolds. Can be combined with the manifold valve actuator for RA valve (Art. 260167) for electric thermostat control (not the standard manifold valve actuator Art. 260166). 3/4 and 1 in. RA valve connections are as noted.


| Manifold Valve Actuator for RA Valves |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> kg | Minimum <br> lb | Order |

The 4-wire manifold valve actuator is a special version for use with RA valves. This includes balancing valves for 3/4 and 1 in. (Art. 260027 and 260037).

## 9. EVERLOC+ compression-sleeve system

EVERLOC + compression-sleeve fittings and sleeves are designed specifically for use with REHAU PEXa pipe. Installation is performed with EVERLOC + compression-sleeve tools. Follow all published REHAU Technical Guidelines. EVERLOC+ polymer fittings are produced from a polyphenylsulfone (PPSU) material. EVERLOC + LF brass fittings are produced from ECO Brass ${ }^{\circledR}$ (UNS C69300 or CW724R). EVERLOC+ compression sleeves are produced using a specially formulated PEXa material and are designed specifically for use with EVERLOC+ fittings. All EVERLOC+ fittings and sleeves comply with the lead-free requirements of the U.S. Safe Drinking Water Act. Order PEXa compression sleeves separately from fittings. EVERLOC+ polymer fittings and sleeves are manufactured by REHAU in a plant using a quality management system that is certified to ISO 9001.

EVERLOC+ PEXa Compression Sleeves

|  | Package Quantity |  | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Bag | Box | $\mathbf{g}$ | lb | Order |
| $104815-001$ | $3 / 8$ in. EVERLOC+ PEXa Sleeve | 50 | 600 | 2.72 | 0.006 | 1 bag |
| $104816-001$ | $1 / 2$ in. EVERLOC+ PEXa Sleeve | 100 | 400 | 3.17 | 0.007 | 1 box |
| $104817-001$ | $5 / 8$ in. EVERLOC+ PEXa Sleeve | 50 | 250 | 5.44 | 0.012 | 1 bag |
| $104818-001$ | $3 / 4$ in. EVERLOC+ PEXa Sleeve | 50 | 150 | 8.62 | 0.019 | 1 box |
| $104819-001$ | 1 in. EVERLOC+ PEXa Sleeve | 20 | 80 | 15.88 | 0.035 | 1 box |
| $104820-001$ | $11 / 4$ in. EVERLOC+ PEXa Sleeve | 10 | 50 | 20.41 | 0.045 | 1 box |
| $104821-001$ | $11 / 2$ in. EVERLOC+ PEXa Sleeve | 10 | 30 | 24.95 | 0.055 | 1 box |
| $104822-001$ | 2 in. EVERLOC+ PEXa Sleeve | 5 | 15 | 29.48 | 0.065 | 1 box |

## EVERLOC+ Straight Couplings



|  |  | Package Quantity |  | Unit Weight |  | Minimum <br> Article No. |  | Description | Bag | Box | $\mathbf{g}$ | lb | Order |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $317138-001$ | $3 / 8 \times 3 / 8$ in. EVERLOC+ LF Brass Coupling | - | 100 | 19.50 | 0.04 | 1 box |  |  |  |  |  |  |  |
| $104824-001$ | $1 / 2 \times 1 / 2$ in. EVERLOC+ Polymer Coupling | 10 | 100 | 4.08 | 0.01 | 1 bag |  |  |  |  |  |  |  |
| $317142-001$ | $5 / 8 \times 5 / 8$ in. EVERLOC+ LF Brass Coupling | - | 40 | 48.53 | 0.11 | 1 box |  |  |  |  |  |  |  |
| $104825-001$ | $3 / 4 \times 3 / 4$ in. EVERLOC+ Polymer Coupling | 10 | 50 | 12.25 | 0.03 | 1 bag |  |  |  |  |  |  |  |
| $104826-001$ | $1 \times 1$ in. EVERLOC+ Polymer Coupling | 10 | 50 | 22.23 | 0.05 | 1 bag |  |  |  |  |  |  |  |
| $104827-001$ | $11 / 4 \times 11 / 4$ in. EVERLOC+ Polymer Coupling | 1 | 10 | 40.37 | 0.09 | 1 bag |  |  |  |  |  |  |  |
| $104828-001$ | $11 / 2 \times 11 / 2$ in. EVERLOC+ Polymer Coupling | 1 | 10 | 71.21 | 0.16 | 1 bag |  |  |  |  |  |  |  |
| $104829-001$ | $2 \times 2$ in. EVERLOC+ Polymer Coupling | 1 | 10 | 125.19 | 0.28 | 1 bag |  |  |  |  |  |  |  |

EVERLOC+ Reducer Couplings


|  |  | Package Quantity |  | Unit Weight |  | Minimum |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Article No. | Description | Bag | Box | g | lb | Order |
| $104830-001$ | $3 / 4 \times 1 / 2$ in. EVERLOC+ Polymer Coupling | 10 | 100 | 8.62 | 0.02 | 1 bag |
| $426294-001$ | $3 / 4 \times 5 / 8$ in. EVERLOC+ LF Brass Coupling | - | 20 | 68.0 | 0.15 | 1 box |
| $426297-001$ | $1 \times 1 / 2$ in. EVERLOC+ LF Brass Coupling | - | 10 | 90.7 | 0.20 | 1 box |
| $104831-001$ | $1 \times 3 / 4$ in. EVERLOC+ Polymer Coupling | 10 | 50 | 17.69 | 0.04 | 1 bag |
| $425026-001$ | $11 / 4 \times 3 / 4$ in. EVERLOC+ LF Brass Coupling | - | 10 | 151.36 | 0.33 | 1 box |
| $104832-001$ | $11 / 4 \times 1$ in. EVERLOC+ Polymer Coupling | 1 | 10 | 32.66 | 0.07 | 1 bag |
| $425028-001$ | $11 / 2 \times 3 / 4$ in. EVERLOC+ LF Brass Coupling | - | 6 | 225.84 | 0.50 | 1 box |
| $104833-001$ | $11 / 2 \times 1$ in. EVERLOC+ Polymer Coupling | 1 | 10 | 49.90 | 0.11 | 1 bag |
| $422233-001$ | $11 / 2 \times 11 / 4$ in. EVERLOC+ LF Brass Coupling | - | 6 | 304.36 | 0.67 | 1 box |
| $425029-001$ | $2 \times 1 / 2$ in. EVERLOC+ LF Brass Coupling | - | 2 | 363.01 | 0.80 | 1 box |
| $425031-001$ | $2 \times 3 / 4$ in. EVERLOC+ LF Brass Coupling | - | 2 | 374.63 | 0.83 | 1 box |
| $317139-001$ | $2 \times 1$ in. EVERLOC+ LF Brass Coupling | - | 2 | 395.59 | 0.87 | 1 box |
| $317140-001$ | $2 \times 11 / 4$ in. EVERLOC+ LF Brass Coupling | - | 2 | 424.66 | 0.94 | 1 box |
| $317141-001$ | $2 \times 11 / 2$ in. EVERLOC+ LF Brass Coupling | - | 2 | 480.07 | 1.00 | 1 box |



EVERLOC+ Straight Tees (A x B x C)


EVERLOC+ Run Reducing Tees (A x B x C)

|  |  | Package Quantity |  | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Bag | Box | $\mathbf{g}$ | lb | Order |
| $104841-001$ | $3 / 4 \times 1 / 2 \times 3 / 4$ in. EVERLOC+ Polymer Tee | 10 | 50 | 19.50 | 0.04 | 1 bag |
| $104842-001$ | $1 \times 3 / 4 \times 1$ in. EVERLOC+ Polymer Tee | 5 | 25 | 37.65 | 0.08 | 1 bag |
| $317143-001$ | $11 / 4 \times 1 \times 11 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 328.85 | 0.73 | 1 box |
| $317144-001$ | $11 / 2 \times 1 \times 11 / 2$ in. EVERLOC+ LF Brass Tee | - | 2 | 517.09 | 1.14 | 1 box |
| $317145-001$ | $11 / 2 \times 11 / 4 \times 11 / 2$ in. EVERLOC+ LF Brass Tee | - | 2 | 553.38 | 1.22 | 1 box |
| $317146-001$ | $2 \times 11 / 4 \times 2$ in. EVERLOC+ LF Brass Tee | - | 1 | 830.07 | 1.83 | 1 box |
| $317147-001$ | $2 \times 11 / 2 \times 2$ in. EVERLOC+ LF Brass Tee | - | 1 | 898.11 | 1.98 | 1 box |



EVERLOC+ Branch Reducing Tees (A x B x C)

|  |  | Package Quantity |  | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Bag | Box | g | lb | Order |
| $104844-001$ | $3 / 4 \times 3 / 4 \times 1 / 2$ in. EVERLOC+ Polymer Tee | 10 | 50 | 18.14 | 0.04 | 1 bag |
| $104846-001$ | $1 \times 1 \times 1 / 2$ in. EVERLOC+ Polymer Tee | 5 | 25 | 29.48 | 0.07 | 1 bag |
| $104845-001$ | $1 \times 1 \times 3 / 4$ in. EVERLOC+ Polymer Tee | 5 | 25 | 35.83 | 0.08 | 1 bag |
| $424991-001$ | $11 / 4 \times 11 / 4 \times 1 / 2$ in. EVERLOC+ LF Brass Tee | - | 2 | 257.30 | 0.57 | 1 box |
| $322832-001$ | $11 / 4 \times 11 / 4 \times 3 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 283.60 | 0.63 | 1 box |
| $104847-001$ | $11 / 4 \times 11 / 4 \times 1$ in. EVERLOC+ Polymer Tee | 1 | 10 | 65.77 | 0.15 | 1 bag |
| $425024-001$ | $11 / 2 \times 11 / 2 \times 1 / 2$ in. EVERLOC+ LF Brass Tee | - | 2 | 394.15 | 0.87 | 1 box |
| $322833-001$ | $11 / 2 \times 11 / 2 \times 3 / 4$ in. EVERLOC LF Brass Tee | - | 2 | 424.33 | 0.94 | 1 box |
| $104848-001$ | $11 / 2 \times 11 / 2 \times 1$ in. EVERLOC+ Polymer Tee | 1 | 5 | 102.51 | 0.23 | 1 bag |
| $317149-001$ | $11 / 2 \times 11 / 2 \times 11 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 535.24 | 1.18 | 1 box |
| $424995-001$ | $2 \times 2 \times 1 / 2$ in. EVERLOC+ LF Brass Tee | - | 1 | 662.03 | 1.46 | 1 box |
| $322834-001$ | $2 \times 2 \times 3 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 696.39 | 1.54 | 1 box |
| $104849-001$ | $2 \times 2 \times 1$ in. EVERLOC+ Polymer Tee | 1 | 5 | 168.74 | 0.37 | 1 bag |
| $317150-001$ | $2 \times 2 \times 11 / 4$ in. EVERLOC+ LF Brass Tee | - | 1 | 757.50 | 1.67 | 1 box |
| $317151-001$ | $2 \times 2 \times 11 / 2$ in. EVERLOC+ LF Brass Tee | - | 1 | 852.75 | 1.88 | 1 box |

EVERLOC + Branch and Run Reducing Tees ( $\mathrm{A} \times \mathrm{Bx}$ C)


|  |  | Package Quantity |  | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Bag | Box | $\mathbf{g}$ | Ib | Order |
| $104851-001$ | $3 / 4 \times 1 / 2 \times 1 / 2$ in. EVERLOC+ Polymer Tee | 10 | 50 | 13.61 | 0.03 | 1 bag |
| $104852-001$ | $1 \times 3 / 4 \times 3 / 4$ in. EVERLOC+ Polymer Tee | 5 | 25 | 30.84 | 0.07 | 1 bag |
| $424989-001$ | $11 / 4 \times 1 \times 3 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 244.68 | 0.54 | 1 box |
| $104853-001$ | $11 / 4 \times 1 \times 1$ in. EVERLOC+ Polymer Tee | 1 | 10 | 56.25 | 0.12 | 1 bag |
| $424992-001$ | $11 / 2 \times 1 \times 3 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 324.03 | 0.71 | 1 box |
| $317152-001$ | $11 / 2 \times 1 \times 1$ in. EVERLOC+ LF Brass Tee | - | 2 | 371.04 | 0.82 | 1 box |
| $425025-001$ | $11 / 2 \times 11 / 4 \times 3 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 365.16 | 0.81 | 1 box |
| $317153-001$ | $11 / 2 \times 11 / 4 \times 1$ in. EVERLOC+ LF Brass Tee | - | 2 | 404.60 | 0.89 | 1 box |
| $317154-001$ | $11 / 2 \times 11 / 4 \times 11 / 4$ in. EVERLOC+ LF Brass Tee | - | 2 | 462.66 | 1.02 | 1 box |
| $424994-001$ | $2 \times 11 / 2 \times 3 / 4$ in. EVERLOC+ LF Brass Tee | - | 1 | 578.65 | 1.28 | 1 box1 |
| $317156-001$ | $2 \times 11 / 2 \times 1$ in. EVERLOC+ LF Brass Tee | - | 1 | 607.81 | 1.34 | 1 box |
| $317161-001$ | $2 \times 11 / 2 \times 11 / 4$ in. EVERLOC+ LF Brass Tee | - | 1 | 666.78 | 1.47 | 1 box |
| $317155-001$ | $2 \times 11 / 2 \times 11 / 2$ in. EVERLOC+ LF Brass Tee | - | 1 | 762.03 | 1.68 | 1 box |



| EVERLOC+ Bullhead Tees ( $\mathrm{A} \times \mathrm{B} \times \mathrm{C}$ ) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Package Quantity |  | Unit Weight |  | Minimum |
| Article No. | Description | Bag | Box | g | lb | Order |
| 104854-001 | $1 / 2 \times 1 / 2 \times 3 / 4$ in. EVERLOC+ Polymer Tee | 10 | 50 | 14.06 | 0.03 | 1 bag |
| 104855-001 | $3 / 4 \times 3 / 4 \times 1$ in. EVERLOC+ Polymer Tee | 5 | 25 | 30.84 | 0.07 | 1 bag |



EVERLOC $+90^{\circ}$ Elbows, PEX to PEX

|  | Package Quantity |  | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Bag | Box | $\mathbf{g}$ | $\mathbf{l b}$ | Order |
| $104859-001$ | $1 / 2 \times 1 / 2$ in. EVERLOC+ Polymer Elbow | 15 | 75 | 6.35 | 0.01 | 1 bag |
| $317163-001$ | $5 / 8 \times 5 / 8$ in. EVERLOC+ LF Brass Elbow | - | 50 | 67.13 | 0.15 | 1 box |
| $104860-001$ | $3 / 4 \times 3 / 4$ in. EVERLOC+ Polymer Elbow | 10 | 50 | 17.69 | 0.04 | 1 bag |
| $104861-001$ | $1 \times 1$ in. EVERLOC+ Polymer Elbow | 5 | 30 | 33.11 | 0.07 | 1 bag |
| $104862-001$ | $11 / 4 \times 11 / 4$ in. EVERLOC+ Polymer Elbow | 1 | 10 | 60.78 | 0.13 | 1 bag |
| $104863-001$ | $11 / 2 \times 11 / 2$ in. EVERLOC+ Polymer Elbow | 1 | 10 | 102.97 | 0.23 | 1 bag |
| $104864-001$ | $2 \times 2$ in. EVERLOC+ Polymer Elbow | 1 | 5 | 187.33 | 0.41 | 1 bag |


| EVERLOC $+45^{\circ}$ Elbows, PEX to PEX |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | $\begin{gathered} \text { Box } \\ \text { Quantity } \end{gathered}$ |  |  | Minimum Order |
| 425021-001 | $11 / 2 \times 11 / 2 \mathrm{in}$. EVERLOC+ LF Brass $45^{\circ}$ Elbow | 2 | 364.48 | 0.80 | 1 box |
| 425022-001 | $2 \times 2$ in. EVERLOC + LF Brass $45^{\circ}$ Elbow | 2 | 642.83 | 1.42 | 1 box |



EVERLOC $+90^{\circ}$ Elbows, PEX to Copper

|  | Box |  | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | lb | Order |
| $317164-001$ | $1 / 2 \times 1 / 2$ in. C Male or 3/8 in. C Female |  |  |  |  |
|  | EVERLOC+ LF Brass Elbow | 50 | 37.65 | 0.08 | 1 box |
| $317165-001$ | $1 / 2 \times 1 / 2$ in. C Female EVERLOC+ LF Brass Elbow | 25 | 66.28 | 0.15 | 1 box |
| $317166-001$ | $3 / 4 \times 3 / 4$ in. C Male EVERLOC+ LF Brass Elbow | 25 | 90.26 | 0.20 | 1 box |
| $317167-001$ | $3 / 4 \times 3 / 4$ in. C Female EVERLOC+ LF Brass Elbow | 20 | 115.21 | 0.25 | 1 box |


| EVERLOC+ $90^{\circ}$ Elbows, PEX to FPT/MPT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Box Quantity | Unit Weight |  | Minimum Order |
|  |  |  | g | lb |  |
| 317170-001 | 1/2 $\times 1 / 2 \mathrm{in}$. FPT EVERLOC+ LF Brass Drop Ear Elbow | 20 | 85.73 | 0.19 | 1 box |
| 317168-001 | 1/2 x 1/2 in. MPT EVERLOC+ LF Brass Drop Ear Elbow | 20 | 85.73 | 0.19 | 1 box |
| 422006-001 | $3 / 4 \times 3 / 4$ in. FPT EVERLOC+ LF Brass Drop Ear Elbow | 8 | 158.76 | 0.35 | 1 box |
| 425476-001 | $3 / 4 \times 3 / 4$ in. MPT EVERLOC+ LF Brass Drop Ear Elbow | , 10 | 129.85 | 0.29 | 1 box |
| 317169-001 | $3 / 4 \times 3 / 4 \mathrm{in}$. MPT EVERLOC+ LF Brass Elbow | 10 | 99.79 | 0.22 | 1 box |
| 422007-001 | $1 \times 1$ in. FPT EVERLOC+ LF Brass Drop Ear Elbow | 5 | 250.62 | 0.55 | 1 box |


| EVERLOC+ Adapters, PEX to Copper |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Box Quantity |  | ght <br> lb | Minimum Order |
| 317184-001 | $1 / 2 \times 1 / 2$ in. C Female <br> EVERLOC+ LF Brass Adapter | 35 | 28.58 | 0.06 | 1 box |
| 317185-001 | $1 / 2 \times 1 / 2$ in. C Male or $3 / 8$ in. C Female EVERLOC+ LF Brass Adapter | 75 | 22.68 | 0.05 | 1 box |
| 322835-001 | $1 / 2 \times 3 / 4$ in. C Female <br> EVERLOC+ LF Brass Adapter | 20 | 44.39 | 0.06 | 1 box |
| 325164-001 | $3 / 4 \times 1 / 2$ in. C Female <br> EVERLOC+ LF Brass Adapter | 20 | 45.30 | 0.10 | 1 box |
| 325165-001 | $3 / 4 \times 1 / 2$ in. C Male <br> EVERLOC+ LF Brass Adapter | 20 | 44.76 | 0.10 | 1 box |
| 317189-001 | $3 / 4 \times 1$ in. C Female <br> EVERLOC+ LF Brass Adapter | 5 | 92.99 | 0.21 | 1 box |
| 317186-001 | $3 / 4 \times 3 / 4$ in. C Male <br> EVERLOC+ LF Brass Adapter | 30 | 69.85 | 0.15 | 1 box |
| 317187-001 | 3/4 x 3/4 in. C Female <br> EVERLOC+ LF Brass Adapter | 20 | 95.25 | 0.21 | 1 box |
| 317190-001 | $1 \times 1$ in. C Male EVERLOC+ LF Brass Adapter | 15 | 115.21 | 0.25 | 1 box |
| 317191-001 | $1 \times 1$ in. C Female EVERLOC+ LF Brass Adapter | 15 | 142.43 | 0.31 | 1 box |
| 317192-001 | $11 / 4 \times 11 / 4$ in. C Male EVERLOC+ LF Brass Adapter | 10 | 177.81 | 0.39 | 1 box |
| 317193-001 | $11 / 4 \times 11 / 4$ in. C Female EVERLOC+ LF Brass Adapter | 10 | 215.46 | 0.48 | 1 box |
| 317194-001 | $11 / 2 \times 11 / 2$ in. C Male EVERLOC+ LF Brass Adapter | 5 | 282.59 | 0.62 | 1 box |
| 317195-001 | $11 / 2 \times 1$ 1/2 in. C Female EVERLOC+ LF Brass Adapter | 5 | 494.42 | 1.09 | 1 box |
| 317196-001 | $2 \times 2$ in. C Male <br> EVERLOC+ LF Brass Adapter | 2 | 585.13 | 1.29 | 1 box |
| 317197-001 | $2 \times 2$ in. C Female EVERLOC+ LF Brass Adapter | 2 | 721.21 | 1.59 | 1 box |

EVERLOC+ MPT Adapters, PEX to MPT


|  |  | Box |  | Unit Weight |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | lb | Order |
| $317174-001$ | $3 / 8 \times 1 / 2$ in. MPT EVERLOC+ LF Brass Adapter | 40 | 38.56 | 0.09 | 1 box |
| $317171-001$ | $1 / 2 \times 1 / 2$ in. MPT EVERLOC+ LF Brass Adapter | 40 | 44.91 | 0.10 | 1 box |
| $317175-001$ | $5 / 8 \times 1 / 2$ in. MPT EVERLOC+ LF Brass Adapter | 30 | 57.15 | 0.13 | 1 box |
| $317176-001$ | $5 / 8 \times 3 / 4$ in. MPT or 1/2 in. C Female |  |  |  |  |
|  | EVERLOC+ LF Brass Adapter | 30 | 84.82 | 0.19 | 1 box |
| $317172-001$ | $3 / 4 \times 3 / 4$ in. MPT EVERLOC+ LF Brass Adapter | 20 | 76.66 | 0.17 | 1 box |
| $317177-001$ | $3 / 4 \times 1$ in. MPT EVERLOC+ LF Brass Adapter | 20 | 124.74 | 0.28 | 1 box |
| $323708-001$ | $1 \times 3 / 4$ in. MPT EVERLOC+ LF Brass Adapter | 10 | 108.47 | 0.24 | 1 box |
| $317178-001$ | $1 \times 1$ in. MPT EVERLOC+ LF Brass Adapter | 15 | 148.32 | 0.33 | 1 box |
| $317179-001$ | $11 / 4 \times 11 / 4$ in. MPT EVERLOC+ LF Brass Adapter | 10 | 246.30 | 0.54 | 1 box |
| $317180-001$ | $11 / 2 \times 11 / 2$ in. MPT EVERLOC+ LF Brass Adapter | 5 | 373.76 | 0.82 | 1 box |
| $317181-001$ | $2 \times 2$ in. MPT EVERLOC+ LF Brass Adapter | 2 | 576.06 | 1.27 | 1 box |

EVERLOC+ FPT Adapters, PEX to FPT


|  | Box |  | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | lb | Order |
| $317173-001$ | $1 / 2 \times 1 / 2$ in. FPT EVERLOC+ LF Brass Adapter | 40 | 51.26 | 0.11 | 1 box |
| $317182-001$ | $3 / 4 \times 3 / 4$ in. FPT EVERLOC+ LF Brass Adapter | 20 | 87.54 | 0.19 | 1 box |
| $329227-001$ | $1 \times 3 / 4$ in. FPT EVERLOC+ LF Brass Adapter | 10 | 116.01 | 0.26 | 1 box |
| $317183-001$ | $1 \times 1$ in. FPT EVERLOC+ LF Brass Adapter | 10 | 143.34 | 0.32 | 1 box |



| EVERLOC+ Plugs |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity |  | Unit Weight |  | Minimum |
|  |  | Bag | Box | g | lb | Order |
| 104856-001 | 1/2 in. EVERLOC+ Polymer Plug | 30 | 150 | 2.27 | 0.005 | 1 bag |
| 317157-001 | 5/8 in. EVERLOC+ LF Brass Plug | - | 60 | 28.94 | 0.064 | 1 box |
| 104857-001 | $3 / 4$ in. EVERLOC+ Polymer Plug | 20 | 100 | 6.35 | 0.014 | 1 bag |
| 104858-001 | 1 in. EVERLOC+ Polymer Plug | 10 | 50 | 11.34 | 0.025 | 1 bag |
| 317158-001 | $11 / 4$ in. EVERLOC+ LF Brass Plug | - | 20 | 133.57 | 0.295 | 1 box |
| 317159-001 | $11 / 2$ in. EVERLOC+ LF Brass Plug | - | 20 | 214.15 | 0.472 | 1 box |
| 317160-001 | 2 in. EVERLOC+ LF Brass Plug | - | 10 | 388.28 | 0.856 | 1 box |

## Straight Ball Valves, EVERLOC + to Copper



|  |  | Package Quantity |  | Unit Weight |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Box | g | Ib | Order |
| $418433-001$ | $1 / 2$ in. EVERLOC $+x 1 / 2$ in. C Female Valve | 18 | 120 | 0.27 | 1 box |
| $418429-001$ | $3 / 4$ in. EVERLOC $+\times 3 / 4$ in. C Female Valve | 8 | 205 | 0.45 | 1 box |

Make solder connection before connecting RAUPEX pipe.

Straight Ball Valves, EVERLOC+ to EVERLOC+


|  | Package Quantity | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Box | $\mathbf{g}$ | lb | Order |
| $418435-001$ | $1 / 2 \times 1 / 2$ in. EVERLOC+ Valve | 18 | 136 | 0.30 | 1 box |
| $418434-001$ | $3 / 4 \times 3 / 4$ in. EVERLOC+ Valve | 8 | 215 | 0.47 | 1 box |



EVERLOC+ Polymer Closed-end Multi-port Tees

| Article No. | Description | $\begin{gathered} \text { Box } \\ \text { Quantity } \end{gathered}$ | Unit Weight |  | Minimum Order |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | g | lb |  |
| 104867-001 | $3 / 4$ in. Inlet, (3) 1/2 in. Outlets, |  |  |  |  |
|  | EVERLOC+ Polymer Closed-end Multi-port Tee | 15 | 25.40 | 0.056 | 1 box |
| 104868-001 | $3 / 4$ in. Inlet, (4) $1 / 2$ in. Outlets, |  |  |  |  |
|  | EVERLOC+ Polymer Closed-end Multi-port Tee | 15 | 32.21 | 0.071 | 1 box |



| EVERLOC+ Polymer Flow-through Multi-port Tees |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | $\begin{gathered} \text { Box } \\ \text { Quantity } \end{gathered}$ |  | ght lb | Minimum Order |
| 104869-001 | $3 / 4 \times 3 / 4$ in. Inlets, (2) $1 / 2$ in. Outlets, EVERLOC+ Polymer Flow-through Multi-port Tee | 15 | 24.49 | 0.054 | 1 box |
| 104870-001 | $3 / 4 \times 3 / 4$ in. Inlets, (3) $1 / 2$ in. Outlets, EVERLOC+ Polymer Flow-through Multi-port Tee | 15 | 31.29 | 0.069 | 1 box |
| 104871-001 | $3 / 4 \times 3 / 4$ in. Inlets, (4) $1 / 2$ in. Outlets, <br> EVERLOC+ Polymer Flow-through Multi-port Tee | 15 | 37.19 | 0.082 | 1 box |



EVERLOC+ Polymer Elbow Flow-through Multi-port Tees

| Article No. | Description | Box | Unit Weight |  | Minimum |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | g | lb | Order |
| 104872-001 | $3 / 4 \times 3 / 4$ in. Inlets, (3) $1 / 2 \mathrm{in}$. Outlets, EVERLOC+ Polymer Elbow Flow-through Multi-port Tee | 15 | 35.83 | 0.079 | 1 box |
| 104873-001 | $3 / 4 \times 3 / 4 \mathrm{in}$. Inlets, (4) $1 / 2 \mathrm{in}$. Outlets, EVERLOC+ Polymer Elbow Flow-through Multi-port Tee | 15 | 42.18 | 0.093 | 1 box |

EVERLOC+ LF Brass Closed-end Copper Multi-port Tees


| Article No. | Description | Package Quantity <br> Box | Unit Weight <br> g | Minimum <br> Ib | Order |
| :--- | :--- | :---: | :---: | :---: | :---: |

Copper multi-port tees are 1 in . Type L copper with EVERLOC+ LF brass fittings brazed into the header and comply with the lead-free requirements of the U.S. Safe Drinking Water Act

| EVERLOC+ LF Brass Flow-through Copper Multi-port Tees |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Article No. | Description | Package Quantity <br> Box | Unit Weight <br> g | Minimum <br> Ib | Order |

Copper multi-port tees 1 in . Type L copper with EVERLOC+ LF brass fittings brazed into the header and comply with the lead-free requirements of the U.S. Safe Drinking Water Act

|  |  | Package Quantity |  |  | Minimum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Box | g | lb | Order |
| 104899-001 | $3 / 4 \times 3 / 4 \times 3 / 4$ in. Inlets, (4) 1/2 in. Outlets, EVERLOC+ LF Brass Horizontal Multi-port Tee | 10 | 368.07 | 0.81 | 1 box |

Copper multi-port tees are 1 in. Type L copper with EVERLOC + LF brass fittings brazed into the header and comply with the lead-free requirements of the U.S. Safe Drinking Water Act


|  |  | Package Quantity |  |  | Minimum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Box | kg | lb | Order |
| 104902-001 | 1 in. Header, (24) 1/2 in. Outlets, |  |  |  |  |
|  | EVERLOC+ LF Brass Cut-to-Length Manifold | 5 | 2.06 | 4.54 | 1 box |

Copper manifolds are 1 in . Type L copper with EVERLOC+ LF brass fittings brazed into the header and comply with the lead-free requirements of the U.S. Safe Drinking Water Act

## 10. RAUPEX compression nut fittings

RAUPEX split-ring compression nut brass fittings are machined from solid brass stock. Integral fitting/insert design provides positive clamping and sealing action with split compression ring.

| RAUPEX MPT Adapters |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Package Quantity |  |  | Unit Weight |  | Minimum Order |
| Article No. | Description | Bag | Box | Carton | g | lb |  |
| 267517 | $3 / 8$ in. RAUPEX x $1 / 2$ in. MPT or $1 / 2$ in. C Female (Sweat) | 5 | 35 | 210 | 130 | 0.29 | 1 bag |
| 260987 | $1 / 2$ in. RAUPEX $\times 1 / 2 \mathrm{in}$. MPT or $1 / 2$ in. C Female (Sweat) | 5 | 25 | 150 | 136 | 0.30 | 1 bag |
| 267567 | $5 / 8$ in. RAUPEX x $1 / 2$ in. MPT or $1 / 2$ in. C Female (Sweat) | 5 | 25 | 150 | 135 | 0.30 | 1 bag |
| 260357 | 3/4 in. RAUPEX x $3 / 4$ in. MPT or $1 / 2 \mathrm{in}$. C Female (Sweat) | 1 | 15 | 90 | 229 | 0.50 | 1 bag |
| 260477 | 1 in. RAUPEX $x 1$ in. MPT or $3 / 4$ in. C Female (Sweat) | 1 | 10 | 60 | 305 | 0.67 | 1 box |

Dual adapter fittings connect RAUPEX pipe to threaded fitting (first size) or copper pipe (second size) in sizes indicated. Make solder or threaded connection before connecting to RAUPEX pipe.

| RAUPEX Copper Adapters |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Package Quantity |  |  | Unit Weight |  | Minimum |
| Article No. | Description | Bag | Box | Carton | g | lb | Order |
| 260997 | 1/2 in. RAUPEX $\times 1 / 2 \mathrm{in}$. C Female (Sweat) | 5 | 30 | 180 | 108 | 0.24 | 1 bag |
| 260347 | $3 / 4 \mathrm{in}$. RAUPEX $\times 3 / 4 \mathrm{in}$. C Female (Sweat) | 1 | 20 | 120 | 166 | 0.37 | 1 bag |
| 260467 | 1 in. RAUPEX $\times 1$ in. C Female (Sweat) | 1 | 10 | 60 | 274 | 0.60 | 1 bag |

[^0]
## 11. Compression nut ball valves



Solder valves in open position. Make solder connection before connecting to RAUPEX pipe.


Balancing Ball Valves, Compression Nut to Copper

| Article No. | Description | Cv | Package Quantity |  | Unit Weight |  | Minimum Order |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Box | Carton | g | lb |  |
| 260847 | 1/2 in. RAUPEX x 1/2 in. C |  |  |  |  |  |  |
|  | Female (Sweat) Balancing Valve | 0 to 3.0 | 12 | 72 | 350 | 0.78 | 1 each |

Balancing ball valves combine a balancing screw with a ball valve in one unit. Make solder connection before connecting to RAUPEX pipe.

## 12. Copper manifolds



| Pre-cut Copper Manifolds |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> kg |  | Minimum <br> Order |
| 261326 | 1 in. Copper Manifold, (2) $1 / 2$ in. Outlets | 1 | 0.19 | 0.43 | 1 |
| 261336 | 1 in. Copper Manifold, (3) $1 / 2$ in. Outlets | 1 | 0.26 | 0.58 | 1 |
| 261346 | 1 in. Copper Manifold, (4) $1 / 2$ in. Outlets | 1 | 0.34 | 0.75 | 1 |

Manifolds are type L copper with open ends in sizes indicated. One end is copper male while the opposite end is flared to copper female (sweat). Manifold pieces may be combined to make longer manifolds. Copper outlets are high-temperature brazed (lead-free) into headers at 2 in. on-center so manifolds cannot be cut to length. $1 / 2 \mathrm{in}$. copper outlets are 2 in . long. Use with REHAU fittings and valves to assemble complete manifolds for heating applications.


| Manifold Header Stock |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | $\begin{aligned} & \text { Max } \\ & \text { GPM } \end{aligned}$ | Header Size | Outlet <br> Size | Package Quantity |  |  | Minimum Order |
| 250810 | $1 \times 1 / 2$ in. Copper Manifold | 20 | 1 in . | 1/2 in. | 5 | 2.3 | 5.1 | 1 |
| 250817 | $1 \times 3 / 4$ in. Copper Manifold | 20 | 1 in . | 3/4 in. | 4 | 2.6 | 5.8 | 1 |
| 250820 | $11 / 4 \times 1 / 2 \mathrm{in}$. Copper Manifold | 32 | $11 / 4 \mathrm{in}$. | 1/2 in. | 4 | 3.0 | 6.5 | 1 |
| 250827 | $11 / 4 \times 3 / 4$ in. Copper Manifold | 32 | $11 / 4 \mathrm{in}$. | $3 / 4 \mathrm{in}$. | 4 | 3.2 | 7.2 | 1 |
| 250829 | $11 / 2 \times 1 / 2 \mathrm{in}$. Copper Manifold | 44 | $11 / 2 \mathrm{in}$. | 1/2 in. | 3 | 3.7 | 8.1 | 1 |
| 250830 | $11 / 2 \times 3 / 4$ in. Copper Manifold | 44 | $11 / 2 \mathrm{in}$. | 3/4 in. | 3 | 4.0 | 8.7 | 1 |
| 250839 | $2 \times 1 / 2$ in. Copper Manifold | 75 | 2 in. | 1/2 in. | 2 | 5.3 | 11.8 | 1 |
| 250840 | $2 \times 3 / 4$ in. Copper Manifold | 75 | 2 in . | $3 / 4 \mathrm{in}$. | 2 | 5.1 | 11.2 | 1 |

Manifolds are type $L$ copper with open ends in sizes indicated. Copper outlets are high-temperature brazed (lead-free) into headers. Each manifold is 72 in $(180 \mathrm{~cm})$ long with 24 outlets at 3 in. on-center, except the $2 \times 1 \mathrm{in}$. copper manifold (Art. 250850) which has 18 outlets at 4 in . on-center. Manifolds can easily be cut to length. Do not exceed maximum flow rates listed above. Use with REHAU fittings and valves to assemble complete manifolds for heating applications.

## Plastic Manifold Brackets



|  |  |  | Package | Unit Weight |  |
| :--- | :--- | :--- | :---: | :---: | :---: | Minimum

Brackets are made of reinforced nylon. A 1.57 in ( 40 mm ) offset allows supply/return manifold clearance. These brackets are used with 1 in. and $11 / 4 \mathrm{in}$. diameter copper manifolds using supplied flexible spacers.

| End Cap Vent Drains |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Article No. Description | Package Quantity | $\begin{aligned} & \text { Uni } \\ & \text { kg } \end{aligned}$ | ight lb | Minimum Order |
| 250810-ECVD 1 in. End Cap Vent Drain | 1 | 0.16 | 0.35 | 1 |
| 250820-ECVD ${ }^{+} 11 / 4$ in. End Cap Vent Drain | 1 | 0.23 | 0.50 | 1 |
| 250830-ECVD $11 / 2$ in. End Cap Vent Drain | 1 | 0.28 | 0.61 | 1 |
| 250840-ECVD 2 in. End Cap Vent Drain | 1 | 0.42 | 0.93 | 1 |

+ This item is not stocked. Lead times may vary.
End cap vent drain pieces are for use with copper manifolds for radiant and SIM applications. They allow connection of an automatic air vent ( $1 / 4 \mathrm{in}$. NPT) and a drain valve ( $1 / 2 \mathrm{in}$. NPT) to the end of the copper manifold. Use standard $1 / 4 \mathrm{in}$. NPT air vent.

Note: The REHAU automatic air vent (Art. 250212) does not work with the end cap vent drains due to different thread sizes. The REHAU automatic air vent is only for use on PRO-BALANCE brass manifolds.

## 13. Installation accessories


$3 / 8,1 / 2,5 / 8$ and $3 / 4 \mathrm{in}$. steel support bends snap over RAUPEX pipe. 1 in. steel support bends (not shown) slide onto pipe.


| Polymer Support Bends with Screw Hole |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Box <br> Quantity | Unit Weight <br> g <br> Ib | Minimum <br> Order |  |
| 266207 | $3 / 8$ and $1 / 2$ in. Polymer Support Bend | 50 | 40 | 0.08 | 1 box |
| $266217^{+}$ | $5 / 8$ in. Polymer Support Bend | 50 | 70 | 0.16 | 1 box |
| 266227 | $3 / 4$ in. Polymer Support Bend | 50 | 70 | 0.16 | 1 box |
| 266237 | 1 in. Polymer Support Bend | 50 | 100 | 0.22 | 1 box |
| 266727 | $11 / 4$ in. Polymer Support Bend | 50 | 200 | 0.44 | 1 box |

+ This item is not stocked. Lead times may vary.


| PVC Bend Guides |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | $\begin{gathered} \text { Box } \\ \text { Quantity } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Ur } \\ & \text { g } \end{aligned}$ | ight lb | Minimum Order |
| 266170-001 | $3 / 8$ and 1/2 in. PVC Bend Guide | 40 | 64 | 0.14 | 1 box |
| 266175-001 | $5 / 8$ and 3/4 in. PVC Bend Guide | 30 | 142 | 0.31 | 1 box |
| 266180 | 1 in. Schedule 40 PVC Bend Guide | 20 | 378 | 0.83 | 1 box |



| PE Protection Sleeves |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Hole Size* | Package Quantity |  | ght <br> lb | Minimum Order |
| 236107 | Protection Sleeve for $3 / 8$ and 1/2 in. Pipe | 1 in. | $100 \mathrm{ft}(30.4 \mathrm{~m})$ coil | 1.4 | 3.1 | 1 coil |
| 236117 | Protection Sleeve for 5/8 and 3/4 in. Pipe | $11 / 4 \mathrm{in}$. | $50 \mathrm{ft}(15.2 \mathrm{~m})$ coil | 1.1 | 2.4 | 1 coil |
| 236127 | Protection Sleeve for 1 in. Pipe | $11 / 2 \mathrm{in}$. | $50 \mathrm{ft}(15.2 \mathrm{~m})$ coil | 1.7 | 3.6 | 1 coil |
| 236137 | Protection Sleeve for $11 / 4 \mathrm{in}$. Pipe | 2 in. | $150 \mathrm{ft}(45.7 \mathrm{~m})$ coil | 6.1 | 13.4 | 1 coil |
| $236147^{+}$ | Protection Sleeve for $11 / 2 \mathrm{in}$. Pipe | $21 / 2 \mathrm{in}$. | $100 \mathrm{ft}(30.4 \mathrm{~m})$ coil | 7.8 | 17.2 | 1 coil |
| $236157^{+}$ | Protection Sleeve for 2 in. Pipe | 3 in. | $100 \mathrm{ft}(30.4 \mathrm{~m})$ coil | 8.7 | 19.2 | 1 coil |

[^1]

| RAUCROSS ${ }^{\text {™ }}$ Heat Shrink Tubing |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package | Unit Weight |  | Minimum |
|  |  | Quantity | g | lb | Order |
| 253615 | 3/8, 1/2, 5/8 and 3/4 in. Heat Shrink - 3.3 ft (1 m) | $40 \mathrm{pcs} / \mathrm{bag}$ | 82 | 0.18 | 1 meter |
| 253625 | $3 / 4$ and 1 in . Heat Shrink - $3.3 \mathrm{ft} \mathrm{(1} \mathrm{m)}$ | $35 \mathrm{pcs} / \mathrm{bag}$ | 122 | 0.27 | 1 meter |
| 082351-100 | $11 / 2$ and $11 / 4$ in. Heat Shrink - $3.3 \mathrm{ft}(1 \mathrm{~m}$ ) | 50 m | 304 | 0.67 | 1 meter |

RAUCROSS heat shrink tubing is for sealing around F2080/SDR11 compression-sleeve joints installed in corrosive environments or buried in soil or in a thermal mass.


RAILFIX ${ }^{\text {T" }}$ Fixing Rails

|  |  | Slot Spacing | Package |  | Unit Weight |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | in. | Quantity | g | lb | Order |
| $259238-2 M$ | $1 / 2$ in. RAILFIX Fixing Rail $-6.5 \mathrm{ft}(2 \mathrm{~m})$ | 1 | $16 \mathrm{pcs} /$ bundle | 480 | 1.06 | 1 bundle |
| $266247-002$ | $5 / 8$ in. RAILFIX Fixing Rail $-6.5 \mathrm{ft}(2 \mathrm{~m})$ | 1 | $16 \mathrm{pcs} / \mathrm{bundle}$ | 510 | 1.12 | 1 bundle |
| 266257 | $3 / 4$ in. RAILFIX Fixing Rail $-6.5 \mathrm{ft}(2 \mathrm{~m})$ | 2 | $16 \mathrm{pcs} /$ bundle | 620 | 1.36 | 1 bundle |

For installation of RAUPEX pipe in a thermal mass or in a sand bed. Polymer material is pre-drilled for fastening.


Universal Fixing Rails $3 / 8$ to $3 / 4$ in.

|  |  | Package | Unit Weight | Minimum |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Article No. | Description | Quantity | g | lb | Order |
| 266407 | Universal Fixing Rail for $3 / 8,1 / 2,5 / 8$ and $3 / 4 \mathrm{in}$. |  |  |  |  |
|  | RAUPEX $-3.3 \mathrm{ft}(1 \mathrm{~m})$ | $10 \mathrm{pcs} /$ bundle | 205 | 0.45 | 1 bundle |

Universal fixing rail is molded with alternating small/large tabs to hold pipe in place. The small tabs hold $3 / 8$ and $1 / 2$ in. RAUPEX pipes, while the large tabs hold $5 / 8$ and $3 / 4 \mathrm{in}$. RAUPEX pipes. Alternating tabs are spaced at $4 \mathrm{in}(10 \mathrm{~cm})$. Flat bottom and pre-drilled holes for mounting. Clips at the end allow pieces to be snapped together to make longer lengths.


| Plastic Holding Pins |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Pack Bag | antity Box |  | ight <br> lb | Minimum Order |
| 259268 | Plastic Holding Pin | 500 | 5000 | 1.46 | 0.003 | 1 bag |

Plastic holding pins are used to secure RAILFIX fixing rail and universal fixing rail (Art. 266407) to rigid insulation.

| Galvanized Support Channels |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Length |  | Package Quantity | Unit Weight |  | Minimum Order |
|  |  | m | ft |  | kg | lb |  |
| 225527-001 | $3 / 4$ in. Steel Support Channel | 5.986 | 19.63 | $10 \mathrm{pcs} / \mathrm{bundle}$ | 2.14 | 4.71 | 1 bundle |
| 225537-002 | 1 in. Steel Support Channel | 5.956 | 19.53 | $10 \mathrm{pcs} / \mathrm{bundle}$ | 3.27 | 7.19 | 1 bundle |
| 225547-002 | $11 / 4$ in. Steel Support Channel | 5.942 | 19.49 | $8 \mathrm{pcs} / \mathrm{bundle}$ | 3.91 | 8.60 | 1 bundle |
| 225557-002 | $11 / 2$ in. Steel Support Channel | 5.926 | 19.45 | $6 \mathrm{pcs} / \mathrm{bundle}$ | 5.59 | 12.30 | 1 bundle |
| 225567-002 | 2 in. Steel Support Channel | 5.896 | 19.33 | 4 pcs/bundle | 6.95 | 15.29 | 1 bundle |


| Locking Clips |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Package | Unit Weight | Minimum |  |
| Article No. | Description | Quantity | $\mathbf{g}$ | Ib |
| $261496^{+}$ | $3 / 8$ in. Locking Clips | $100 / \mathrm{bag}$ | 4 | 0.01 |
| 261556 | $1 / 2$ in. Locking Clips | $100 / \mathrm{bag}$ | 5 | 0.01 |
| $261506^{+}$ | $5 / 8$ in. Locking Clips | $100 / \mathrm{bag}$ | 6 | 0.01 |
| 261516 | $3 / 4$ in. Locking Clips | $50 / \mathrm{bag}$ | 7 | 0.02 |
| 261566 | 1 in. Locking Clips | $50 / \mathrm{bag}$ | 12 | 0.03 |
| 261576 | $11 / 4$ in. Locking Clips | $50 / \mathrm{bag}$ | 12 | 0.03 |
| 261586 | $11 / 2$ in. Locking Clips | $25 / \mathrm{bag}$ | 18 | 1 bag |
| 261596 | 2 in. Locking Clips | $25 / \mathrm{bag}$ | 30 | 0.04 |

+ This item is not stocked. Lead times may vary.


|  |  | Package |  |  | Minimum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | g | lb | Order |
| 260866 | Twin Talon Drive Hooks | 100/bag | 6 | 0.01 | 1 bag |
| $260846{ }^{+}$ | Low Profile 3/8 in. Talons | 100/bag | 4 | 0.01 | 1 bag |
| 261766 | Low Profile 1/2 in. Talons | 100/bag | 4 | 0.01 | 1 bag |
| 261776 | Low Profile 5/8 in. and 3/4 in. Talons | 50/bag | 6 | 0.01 | 1 bag |
| 261806 | Low Profile 1 in. Talons | 50/bag | 10 | 0.02 | 1 bag |

+ This item is not stocked. Lead times may vary.


## Single Nail Clamps



|  | Package Quantity |  | Unit Weight |  | Minimum |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Article No. | Description | Bag | Box | g | lb | Order |
| 261746 | Single Nail Clamp for $3 / 8$ and 1/2 in. Pipe | 100 | 1500 | 4 | 0.01 | 1 bag |
| $261756^{+}$ | Single Nail Clamp for 3/4 in. Pipe | 100 | 1000 | 5 | 0.01 | 1 bag |

+ This item is not stocked. Lead times may vary.
Completely encircles pipe. Pre-installed barbed nail prevents backout.

| Plastic Pipe Clamps |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Package Quantity |  | Unit Weight |  | Minimum |
| Article No. | Description | Bag | Box | g | lb | Order |
| 282401+ | $11 / 4$ in. Plastic Pipe Clamp | 50 | 800 | 16 | 0.04 | 1 bag |
| $282411^{+}$ | 11/2 in. Plastic Pipe Clamp | 25 | 600 | 20 | 0.05 | 1 bag |
| $282421^{+}$ | 2 in. Plastic Pipe Clamp | 25 | 300 | 32 | 0.07 | 1 bag |

+ This item is not stocked. Lead times may vary.

|  |  | Isolating Suspension Clamps |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Package Quantity |  | Unit Weight |  | Minimum |
|  |  | Article No. | Description | Bag | Box | g | lb | Order |
|  |  | 282431+ | $11 / 4 \mathrm{in}$. Isolating Suspension Clamp | 50 | 800 | 15 | 0.03 | 1 bag |
| (*) | - $\quad$ | $282441+$ | 11/2 in. Isolating Suspension Clamp | 25 | 600 | 28 | 0.04 | 1 bag |
|  |  | $282451+$ | 2 in. Isolating Suspension Clamp | 25 | 300 | 23 | 0.05 | 1 bag |

+ This item is not stocked. Lead times may vary
Secures RAUPEX pipe to both wood and metal framework.

| Nylon Pipe Ties |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |
| Article No. | Description | Quantity | g | lb | Order |
| 724448 | Nylon Pipe Ties | $1000 / \mathrm{bag}$ | 1.43 | 0.003 | 1 bag |

Non-abrasive nylon pipe ties safely secure pipe directly to slab reinforcing bars or wire mesh. Ties are 8 in. long and rated at 50 lbs tensile strength.

## 14. PEX pipe installation tools



| EVERLOC+ Power Tool Standard Kit |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{gathered} \text { Uni } \\ \text { kg } \end{gathered}$ | $\begin{gathered} \text { ght } \\ \text { lb } \end{gathered}$ | Minimum Order |
| 105107-003 | EVERLOC+ Power Tool Standard Kit (1/2, 3/4 and 1 in.) | 1 | 6.8 | 15 | 1 |

The EVERLOC+ power tool standard kit is specifically designed for assembling $1 / 2,3 / 4$ and 1 in . EVERLOC+ fittings. The tool kit comes complete with the following:

- EVERLOC + power tool base unit (Art. 105106-003)
- EVERLOC+ expander adapter QC (Art. 105167-001)
- EVERLOC + expander heads QC: 1/2 in. (Art. 105074-001), 3/4 in. (Art. 105076-001), 1 in. (Art. 105077-001)
- EVERLOC+ compression jaws (set): 1/2 in. (Art. 105084-001), 3/4 in. (Art. 105088-001), 1 in. (Art. 105091-001)
- (2) DeWALT ${ }^{\circledR} 12 \mathrm{~V}$ Li-ion batteries (DCB127)
- DeWALT ${ }^{\circledR}$ 12V/20V Li-ion battery charger, 120VAC (DCB107)
- RAUCUTTER (Art. 137495)
- Tool case (Art. 318135-003)

- Grease (Art. 224989-001) and cleaning brush (Art. 224988-001)
- Operating instructions

DeWALT ${ }^{\circledR}$ and the DeWALT Logo are trademarks of Stanley Black \& Decker, Inc., or an affiliate thereof and are used under license.

A
Read the instruction manual thoroughly before use and follow all safety precautions - improper use can cause serious personal injury.


| EVERLOC+ Expander Heads |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> g <br> Ib | Minimum <br> Order |  |
| $105073-001$ | $3 / 8$ in. EVERLOC+ Expander Head (Quick Change) | 1 | 162 | 0.36 | 1 ea |
| $105074-001$ | $1 / 2$ in. EVERLOC+ Expander Head (Quick Change) | 1 | 159 | 0.35 | 1 ea |
| $105075-001$ | $5 / 8$ in. EVERLOC+ Expander Head (Quick Change) | 1 | 152 | 0.34 | 1 ea |
| $105076-001$ | $3 / 4$ in. EVERLOC+ Expander Head (Quick Change) | 1 | 150 | 0.33 | 1 ea |
| $105077-001$ | 1 in. EVERLOC+ Expander Head (Quick Change) | 1 | 181 | 0.40 | 1 ea |

EVERLOC+ Compression Jaws


|  | Package |  | Unit Weight |  | Minimum |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | $\mathbf{g}$ | Ib | Order |
| $105083-001$ | $3 / 8$ in. EVERLOC+ Compression Jaws (set) | 1 set | 251 | 0.55 | 1 set |
| $105084-001$ | $1 / 2$ in. EVERLOC+ Compression Jaws (set) | 1 set | 272 | 0.60 | 1 set |
| $105087-001$ | $5 / 8$ in. EVERLOC+ Compression Jaws (set) | 1 set | 288 | 0.63 | 1 set |
| $105088-001$ | $3 / 4$ in. EVERLOC+ Compression Jaws (set) | 1 set | 295 | 0.65 | 1 set |
| $105091-001$ | 1 in. EVERLOC+ Compression Jaws (set) | 1 set | 386 | 0.85 | 1 set |



EVERLOC+ XL Power Tool Standard Kit

| EVERLOC+ XL Power Tool Standard Kit |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight |  |
| kg | lb | Minimum |  |  |
| Order |  |  |  |  |

The EVERLOC+ XL power tool standard kit is specifically designed for assembling $11 / 4,11 / 2$ and 2 in . EVERLOC+ fittings. The tool kit comes complete with the following:

- EVERLOC+ XL power tool base unit (Art. 105994-002)
- EVERLOC+ XL power tool support handle (Art. 105995-001)
- EVERLOC+ XL expander adapter QC (Art. 105744-001)
- EVERLOC+ XL expander heads QC: $11 / 4$ in. (Art. 105078-001), 1 1/2 in. (Art. 105079-001), 2 in. (Art. 105080-001)
- EVERLOC+ XL compression jaws (set): $11 / 4$ in. (Art. 105094-001), $11 / 2$ in. (Art. 105096-001), 2 in. (Art. 105098-001)
- (2) MAKITA ${ }^{\circledR} 18 \mathrm{~V}$ Li-ion batteries (BL1840B)
- MAKITA ${ }^{\circledR} 18 \mathrm{~V}$ Li-ion battery charger, 120VAC (DC18RC)
- Large ratchet cutter (Art. 131558-001)
- Tool case (Art. 321251-001)
- Grease (Art. 224989-001), cleaning brush (Art. 224988-001) and operating instructions


## A Read the instruction manual thoroughly before use and follow all safety precautions - improper use can cause serious personal injury.

Accessory item sold separately:

- EVERLOC+ XL Power Tool Kit Trolley (Art. 324373-001)

EVERLOC + XL Expander Tool Standard Kit


|  | Package | Unit Weight |  | Minimum |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Quantity | kg | Ib | Order |
| $106096-002$ | EVERLOC + XL Expander Tool Kit $(11 / 4,11 / 2$ and 2 in. $)$ | 1 | 5.4 | 12 | 1 |

The EVERLOC+ XL expander tool standard kit is specifically designed for the expansion of $11 / 4,11 / 2$ and 2 in . EVERLOC+ fittings. The tool kit comes complete with the following:

- EVERLOC+ XL expander tool base unit (Art. 105419-002)
- MAKITA ${ }^{\circledR}$ 18V Li-ion battery (BL1840B)
- Tool case (Art. 322285-001)
- Grease (Art. 224989-001) and cleaning brush (Art. 224988-001)
- Operating instructions


Read the instruction manual thoroughly before use and follow all safety precautions - improper use can cause serious personal injury.


| EVERLOC+ XL Expander Heads |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{aligned} & \text { Un } \\ & \text { g } \end{aligned}$ | ight lb | Minimum Order |
| 105078-001 | $11 / 4$ in. EVERLOC+ XL Expander Head (Quick Change) | 1 | 590 | 1.30 | 1 ea |
| 105079-001 | 11/2 in. EVERLOC+ XL Expander Head (Quick Change) | 1 | 667 | 1.47 | 1 ea |
| 105080-001 | 2 in . EVERLOC+XL Expander Head (Quick Change) | 1 | 748 | 1.65 | 1 ea |



| EVERLOC+ XL Compression Jaws |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Article No. | Description | Package | Unit Weight | Minimum |  |
| $105094-001$ | $11 / 4$ in. EVERLOC+ XL Compression Jaws (set) | Quantity | $\mathbf{g}$ | lb | Order |
| $105096-001$ | $11 / 2$ in. EVERLOC+ XL Compression Jaws (set) | 1134 | 2.50 | 1 set |  |
| $105098-001$ | 2 in. EVERLOC+XL Compression Jaws (set) | 1 set | 1179 | 2.60 | 1 set |




| RAUTACKER 3D Stapler Tools |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity |  |  | Minimum Order |
| 298956-001 | RAUTACKER 3D Stapler Tool | 1 | 2.78 | 6.12 | 1 |
| 298966-001 | RAUTACKER 3D 1 3/8 in. Foam Staple | 400/box | 0.0018 | 0.004 | 1 box |
| 340603-001 | RAUTACKER 3D 2 in. Foam Staple | 400/box | 0.0020 | 0.005 | 1 box |
| 298196-001 | RAUTACKER 3D 2 3/8 in. Foam Staple | 400/box | 0.0022 | 0.006 | 1 box |

RAUTACKER 3D foam staples are used when installing RAUPEX pipe on rigid foam board insulation in radiant heating and snow and ice melting applications. Extruded polystyrene foam board is recommended.

RAUTACKER 3D $13 / 8$ in. staples work with $3 / 8,1 / 2$ and $5 / 8$ in. pipe and with minimum 1 in. ( 25 mm ) thick insulation. RAUTACKER 3D $23 / 8$ in. staples are required for $3 / 4$ in. pipe and minimum $11 / 2$ in. ( 38 mm ) thick insulation, but also work with $3 / 8,1 / 2$ and $5 / 8$ in. pipe. Typically, one staple is required every $3 \mathrm{ft}(90 \mathrm{~cm})$ on straight runs of pipe with an additional staple in the middle of bends. Staples are supplies in magazines of 25 .

| RAUTACK Foam Staples |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| Article No. | Description | Package |  | Unit |  |

For use with RAUPEX pipe to install on rigid foam board insulation (extruded polystyrene is recommended). RAUTACK foam staples work with $3 / 8,1 / 2,5 / 8$ and $3 / 4$ in. RAUPEX pipes installed in radiant and SIM applications. The $11 / 2 \mathrm{in}$. staple is for use with minimum 1 in $(25 \mathrm{~mm})$ thick insulation. The $21 / 4 \mathrm{in}$. staple is for use with minimum $11 / 2 \mathrm{in}(38 \mathrm{~mm})$ thick insulation. Typically only one staple is required every $3 \mathrm{ft}(90 \mathrm{~cm})$ on straight runs of pipe, with one staple in the middle of bends.

Note: For use with previous version of RAUTACKER stapler tool (Art. 266177). Not compatible with RAUTACKER 3D stapler tool (Art. 298956-001).

| Screw Clip Ratchet Tools |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Package |  |  | Minimum |
| Article No. | Description | Quantity | kg | lb | Order |
| 260886 | Screw Clip Ratchet Tool | 1 | 0.7 | 1.6 | 1 |
| 260836 | Insulation Screw Clips | 1000/bag |  | 0.02 | 1 bag |

The screw clip ratchet tool installs insulation screw clips (Art. 260836) to secure RAUPEX pipe to rigid insulation such as extruded polystyrene or polyurethane. Not recommended for use with expanded polystyrene foam insulation. Can be used with 1/2,5/8 and 3/4 in. RAUPEX pipe.

| Hand Power (HP) Stapler Tools |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity |  |  | Minimum Order |
| 266287 | Hand Power (HP) Stapler Tool | 1 | 2.5 | 5.5 | 1 |
| 266297 | Hand Power (HP) $11 / 2$ in. Plastic Staple | 500/box | 0.004 | 0.009 | 1 box |

For use with RAUPEX pipe to install on wooden subfloor systems. The HP stapler tool installs plastic staples with integral steel nail (Art. 266297) without the use of air power or electricity. HP staples work with $3 / 8,1 / 2$ and $5 / 8$ in. RAUPEX pipe installed in radiant applications.


| Pneumatic Staplers |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight | Minimum |  |
| Article No. | Description | Quantity | $\mathbf{k g}$ | lb | Order |
| 261016 | Pneumatic Stapler | 1 | 5.0 | 11.0 | 1 |
| $261016-S T P$ | $11 / 4$ in. Staples for Use With Pneumatic Stapler | $10,000 /$ box | 3.2 | 7.0 | 1 box |

Pneumatic Stapler fastens RAUPEX pipe to a wooden subfloor. For use with $3 / 8$ and $1 / 2 \mathrm{in}$. RAUPEX pipe, tool comes complete with pogo stick extension arm so it can be used from a standing position. Use only the Senco staples (Art. 261016-STP, P15BAB) listed above or equal; 1 in. crown, 1 1/4 in. leg, 16 gauge chisel point.


| Staple Clip Guns |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Package Quantity | $\begin{aligned} & \text { Un } \\ & \text { kg } \end{aligned}$ |  | Minimum Order |
| 266117 | Staple Clip Gun | 1 | 0.58 | 1.30 | 1 |
| 266137 | 1/2 in. Flush Mount Staple Clips | 100/bag | 0.03 | 0.06 | 1 bag |
| $266147^{+}$ | $5 / 8$ in. Flush Mount Staple Clips | 100/bag | 0.03 | 0.06 | 1 bag |
| 266157 | $3 / 4$ in. Flush Mount Staple Clips | 100/bag | 0.03 | 0.06 | 1 bag |

+ This item is not stocked. Lead times may vary.
For installation of RAUPEX pipe onto a wood surface. Hand-powered staple clip gun shoots plastic clips with steel staple inserts. Clips hold the pipe away from the surface. All sizes of clips are installed with the same gun.

| Pressure Testers |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  | Package | Unit |  | Weight | Minimum |
| Article No. | Description | Quantity | kg | lb | Order |
| 257334 | Air Pressure Tester | 1 | 0.3 | 0.8 | 1 |

Air pressure tester threads into the 1 in. isolation valve on a PRO-BALANCE manifold and connects to an air hose (Schrader valve included). Tester includes a pressure gauge that reads from 0 to 200 psi.

| Infrared Thermometers |  |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |  |
| Article No. | Description | Quantity | g | Ib | Order |  |
| $261696-001$ | IR Thermometer | 1 | 240 | 0.53 | 1 |  |

Non-contact infrared thermometer can be used to measure temperatures of heated or unheated floors, indoor building surfaces, heating system components (including pipes and manifolds). Includes 2 AAA batteries and provides up to 130 hours of continuous use.


| Turntable Uncoilers |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Article No. | Description | Package | Unit Weight |  | Minimum |
| $424865-001$ | Turntable Uncoiler | Quantity | kg | lb | Order |

Uncoiler has adjustable I.D. to fit multiple sizes of PEXa up to $1,000 \mathrm{ft}$ of $3 / 4 \mathrm{in}$. Turntable rotates from horizontal to vertical to fit through doorways and allow for easy jobsite mobility. Assembly required.


| RAUPEX Horizontal Uncoilers |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight | Minimum |  |
| Article No. | Description | Quantity | kg | lb | Order |
| $286151-002$ | RAUPEX Horizontal Uncoiler | 1 | 13 | 28 | 1 |

[^2]
## 15. Electronic controls


$\left.\begin{array}{llcccc}\text { Radiant Floor Heating (RFH) Controls } & & & \\ & & \text { Package } \\ \text { Quantity }\end{array}\right)$

+ Item not stocked. Lead times may vary.
The Floating Action Mixing Control (At. 236317-001) is an outdoor reset control designed to control the mixed supply water temperature to a radiant system. The floating action mixing control operates a 24 VAC floating action 3 or 4 -way mixing valve actuator (Art. 260526, Art. 260566) to regulate the supply water temperature while still protecting a non-condensing boiler against flue gas condensation. This control also provides for boiler operation, primary pump operation and secondary pump operation.

The Variable Speed Mixing Control (Art. 236327-001) is an outdoor reset control designed to control the mixed supply water temperature to a radiant system. The variable speed mixing control operates a variable speed injection pump to regulate the supply water temperature while still protecting the boiler against flue gas condensation. This control also provides for boiler operation, primary pump operation, and secondary pump operation.


| Single-zone SIM Controls Low Voltage |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Article No. | Description | Package | Unit Weight |  | Minimum |
| Quantity | $\mathbf{g}$ | Ib | Order |  |  |
| $315839-001^{+}$ | Single-zone SIM Control Low Voltage (654) | 1 | 590 | 1.3 | 1 |
| $315836-001^{+}$ | Aerial Snow Sensor (095) | 1 | 180 | 0.4 | 1 |

${ }^{+}$Item not stocked. Lead times may vary.
The Single-zone SIM control (654) operates hydronic equipment to melt snow or ice from any surface including driveways, walkways, patios, business entrances, parking ramps, loading docks, hospital entrances, helipads or car wash bays. The surface temperature for snow melting is controlled automatically to reduce operating energy costs.

The control has an automatic start and stop function when used with the snow/ice sensor (090) (Art. 236357-001). Automatic start with a timed stop is available when used with the aerial snow sensor (095) (Art. 315836-001). The control can operate a dedicated hydronic boiler or a mixing device. Isolation relays are required to operate line voltage pumps.

The aerial snow sensor (095) is an aerial mounted sensor that detects falling snow and allows the Single-zone SIM control (654) (Art. 315839-001) to automatically start the snow melting equipment. System stop is provided by the control's timer or by manual disable. The sensor mounts to a nominal $1 / 2 \mathrm{in}$. ( 16 mm ) metal or PVC conduit or pole. The sensor is well suited to adding automatic start to an existing snow melt system. This sensor can only be used with the Single-zone SIM control (654) (Art. 315839-001)

| Snow and Ice Melt (SIM) Controls |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> kg <br> lb | Minimum <br> Order |  |
| $425151-001$ | Wi-Fi Snow Melting Control <br> W/ Boiler and Mixing Control (670) | 1 | 1.9 | 4.3 | 1 |
| $298746-002$ | Wi-Fi Single-zone SIM Controller <br> W/ Pulse Width Modulation (671) | 1 | 1.4 | 3.1 | 1 |

The Wi-Fi Snow Melting Control (670) operates hydronic heating equipment designed to melt snow and/or ice from roads and walkway surfaces. This control works with the 090 Snow/Ice Sensor (Art. 236357-001) or 095 Aerial Snow Sensor (Art. 315836-001) to automatically detect snow or ice and operates a single boiler to supply heat to the slab. Boiler return protection is provided to non-condensing boilers using a mixing valve or variable speed injection mixing pump.

The WiFi Single Zone SIM Controller (671) is designed to operate mechanical equipment to melt snow off an outdoor slab. It is used in hydronic snow melting applications. This product uses a snow/ice detection sensor in order to automatically melt snow using pulse width modulation (PWM) and slab outdoor reset to maintain slab temperature. It is capable of controlling a single boiler, a system pump, and providing a signal when melting is enabled

Additional control and monitoring can be done with the using the TEKMAR Connect mobile application, available for iOS and Android.


+ This item is not stocked. Lead times may vary.
Electronic accessories can be used with specific mixing controls and/or digital thermostats as replacements and/or additional connections. Refer to mixing control and/or thermostat for compatibility.


## 16. Mixing valves



| Variable Speed Injection Mixing Modules |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight | Minimum |  |
| Article No. | Description | Quantity | kg | Ib | Order |
| $281731-001^{+}$ | Variable Speed Mixing Module | 1 | 8.4 | 18.5 | 1 |

+ This item is not stocked. Lead times may vary.
Used to supply design temperature water to the PRO-BALANCE or HLV manifolds. Capability up to 120,000 Btu/hr. Single compact unit Includes an electronic variable speed injection mixing control, variable speed pump and system circulator with air elimination valve. Extremely versatile, the variable speed mixing module is equipped to be set up as an outdoor reset control, a set point control or a delta T limiting control.

| Modulating Mixing Valves |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Cv | Package Quantity |  |  | Minimum Order |
| 298016-001+ | 3/4 in. 3-way Modulating Mixing Valve | 4.5 | 1 | 0.60 | 1.32 | 1 |
| 298776-001+ | 1 in. 3-way Modulating Mixing Valve | 4.5 | 1 | 0.68 | 1.50 | 1 |
| 298026-001+ | $11 / 4$ in. 4-way Modulating Mixing Valve | 17.5 | 1 | 1.43 | 3.15 | 1 |

+ This item is not stocked. Lead times may vary.
REHAU modulating mixing valves are a powerful cost effective alternative for zone mixing with such features as outdoor reset, boiler return temperature protection and warm weather shut down (WWSD).
- Maximum operating pressure: $300 \mathrm{psi}(2,100 \mathrm{KPa})$
- Fluid temperature range: 20 to $240^{\circ} \mathrm{F}\left(-7\right.$ to $\left.115^{\circ} \mathrm{C}\right) @ 135^{\circ} \mathrm{F}\left(57^{\circ} \mathrm{C}\right)$ ambient
- Adjustable setpoint dial 80 to $180^{\circ} \mathrm{F}\left(27\right.$ to $82^{\circ} \mathrm{C}$ )
- Selectable $15^{\circ} \mathrm{F}\left(-9^{\circ} \mathrm{C}\right)$ setback
- Optional boiler protection set at $135^{\circ} \mathrm{F}\left(57^{\circ} \mathrm{C}\right)$


Thermostatic 3-Way Mixing Valves

| Article No. | Size | Cv | Connection | Temperature | Range | Package Quantity | Unit Weight $\mathrm{kg} \quad \mathrm{lb}$ |  | Minimum Order |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 234037 | $3 / 4 \mathrm{in}$. | 1.9 | NPT | 85 to $160^{\circ} \mathrm{F}$ | (19 to $71^{\circ} \mathrm{C}$ ) | 1 | 0.54 | 1.2 | 1 |
| $234047^{+}$ | $3 / 4 \mathrm{in}$. | 1.8 | Compression | 95 to $140^{\circ} \mathrm{F}$ | (35 to $60^{\circ} \mathrm{C}$ ) | 1 | 0.60 | 1.3 | 1 |
| 260068-001 | 1 in . | 4.1 | NPT | 95 to $140^{\circ} \mathrm{F}$ | (35 to $60^{\circ} \mathrm{C}$ ) | 1 | 0.91 | 2.0 | 1 |

+ This item is not stocked. Lead times may vary.
Thermostatic mixing valves control supply water temperature for small-sized radiant systems. Sensing element is a wax/copper compound mounted within the valve body. Provides rapid stabilization of supply water temperature. Temperature is adjusted with the knob located at the top of the valve body. For feedback on temperature adjustments place a thermometer (Art. 260957,

260967) downstream of the valve. Compression-type fitting for copper distribution piping or NPT type for threaded pipe. Size valve based on Cv rating (GPM @ 1 psi pressure loss, 2.3 feet headloss).

Specifications:

- Maximum input temperature: $195^{\circ} \mathrm{F}\left(90^{\circ} \mathrm{C}\right)$
- Regulated output temperature range: as listed
- Maximum working pressure: 145 psi ( 10 bar; 1 MPa )
- Regulation accuracy: $+/-3.6^{\circ} \mathrm{F}\left(2^{\circ} \mathrm{C}\right)$ at a minimum flow of $0.5 \mathrm{GPM}(2 \mathrm{I} / \mathrm{m})$
- Material: brass body



Use with mixing valves 2 in. and smaller for motor operated control. The motor is controlled by REHAU outdoor reset/mixing controls. Operates on 24 Volt AC input provided through these controls. No additional installation kit is required. Built-in end switch is included. Manual override of mixing valve is possible by pulling out and turning the knob. Be sure to adjust the motor speed setting on electronic mixing controls to 96 seconds.

Specifications:

- Ambient temperature range: 22 to $130^{\circ} \mathrm{F}\left(-5\right.$ to $\left.55^{\circ} \mathrm{C}\right)$
- Torque: 53.10 in. Ibs
- Protection type: NEMA 1 (IP 40)
- Supply voltage: 24 VAC, $50-60 \mathrm{~Hz}$
- Power consumption: 2 VA (watts) when operating


## Brass Mixing Valves

Compact 3- or 4-way brass mixing valves are ideal for reliable control of radiant or SIM supply water temperature. Suitable for motor controlled radiant or SIM applications with 600 series control motor (Art. 260526-001). When choosing a 3- or 4-way mixing valve, size according to flow (Cv) and not pipe size, for more accurate mixing. This often means using a valve that is one size smaller than supply/return pipes.

| 3-Way Brass Mixing Valves |  |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Cv | Package <br> Quantity | Unit Weight <br> kg <br> lb | Minimum <br> Order |  |
| 260106-001 | $3 / 4$ in. FPT 3-way Brass Mixing Valve | 7.3 | 1 | 0.5 | 1.0 | 1 |
| $260116-001$ | 1 in. FPT 3-way Brass Mixing Valve | 11.7 | 1 | 0.7 | 1.5 | 1 |
| $260136-001$ | $11 / 4$ in. FPT 3-way Brass Mixing Valve | 18.7 | 1 | 1.0 | 2.3 | 1 |
| $260146-001^{+}$ | $11 / 2$ in. FPT 3-way Brass Mixing Valve | 29.3 | 1 | 1.68 | 3.7 | 1 |

+ This item is not stocked. Lead times may vary. Specifications:
- Maximum operating pressure: 145 psi (10 bar)
- Maximum operating temperature: $230^{\circ} \mathrm{F}\left(110^{\circ} \mathrm{C}\right)$
- Minimum operating temperature: $-15^{\circ} \mathrm{F}\left(-10^{\circ} \mathrm{C}\right)$
- Maximum mixing differential pressure: 14.5 psi (1 bar)
- Maximum diverting differential pressure: 20 psi (2 bar)
- Maximum torque: $45 \mathrm{lbf}-\mathrm{in}(5 \mathrm{Nm})$


| 4-Way Brass Mixing Valves |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description | Cv | Package Quantity |  |  | Minimum Order |
| 260236-001 | $3 / 4$ in. FPT 4-way Brass Mixing Valve | 7.3 | 1 | 0.5 | 1.1 | 1 |
| 260246-001 | 1 in. FPT 4-way Brass Mixing Valve | 11.7 | 1 | 0.8 | 1.7 | 1 |
| 260266-001 | $11 / 4$ in. FPT 4-way Brass Mixing Valve | 18.7 | 1 | 1.2 | 2.6 | 1 |

Specifications:

- Maximum operating pressure: 145 psi (10 bar)
- Maximum operating temperature: $230^{\circ} \mathrm{F}\left(110^{\circ} \mathrm{C}\right)$
- Minimum operating temperature: $-15^{\circ} \mathrm{F}\left(-10^{\circ} \mathrm{C}\right)$
- Maximum differential pressure: 14.5 psi (1 bar)
- Maximum torque: 45 Ibf-in (5 Nm)


## 17. Hydronic accessories



| Pressure Differential Bypass Valves |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Package |  |  | Minimum |
| Article No. | Description | Quantity | kg | lb | Order |
| 260517 | 1/2 in. C Female (Sweat) Pressure Bypass Valve | 1 | 0.68 | 1.5 | 1 |
| 260527 | 3/4 in. C Female (Sweat) Pressure Bypass Valve | 1 | 0.91 | 2.0 | 1 |
| 267987 ${ }^{+}$ | 1 in. MPT Pressure Bypass Valve | 1 | 1.40 | 3.0 | 1 |

+ This item is not stocked. Lead times may vary.
Pressure differential bypass valves divert excess flow when one circulator pump is used with multiple zones, reducing wear on the pump, avoiding noise problems in the control valves and allowing more stable temperature control. Valves are pressure-adjustable Connections (union ends) are to copper pipe for $1 / 2$ and $3 / 4 \mathrm{in}$. valves. The 1 in . valve is supplied with 1 in . MPT union ends.

| Thermometers |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Article No. | Description | Package <br> Quantity | Unit Weight <br> kg <br> lb | Minimum <br> Order |  |
| 260957 | Thermometer with $1 / 2$ in. MPT Well Fitting | 1 | 0.12 | 0.26 | 1 |
| 260967 | Thermometer with $3 / 4$ in. Solder Well Fitting | 1 | 0.13 | 0.29 | 1 |

Thermometers are recommended in radiant/SIM supply and return pipes to monitor fluid temperatures. REHAU immersion well thermometers have a $21 / 2 \mathrm{in}$. dial, reading from 50 to $250^{\circ} \mathrm{F}\left(10\right.$ to $\left.120^{\circ} \mathrm{C}\right)$.


| Combination Temperature/Pressure Gauges |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Package | Unit Weight |  | Minimum |
| Article No. | Description | Quantity | kg | lb | Order |
| 266417 | Combination Temperature/Pressure Gauge | 1 | 0.14 | 0.30 | 1 |

The combination temperature/pressure gauge has a $21 / 2$ in. dial reading from 0 to 100 psi and 30 to $240^{\circ} \mathrm{F}\left(-1\right.$ to $\left.115^{\circ} \mathrm{C}\right) .1 / 4$ in. NPT back-mounted connection for installation in a pipe tee/fitting. The immersion gauge contacts the water directly to give the highest degree of temperature and pressure accuracy. For use in radiant and SIM applications.


| Heat Exchangers |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Article No. | Description Q | kage | $\begin{aligned} & \text { Uni } \\ & \text { kg } \end{aligned}$ | Ib | Minimum Order |
| 266477 | Heat Exchanger, $3 / 4$ in. MPT Connections ( 100,000 Btu load) | 1 | 2.0 | 4.4 | 1 |
| 266487-001 | Heat Exchanger, $3 / 4 \mathrm{in}$. MPT Connections ( 150,000 Btu load) | 1 | 2.4 | 5.3 | 1 |

Compact stainless steel heat exchanger for use in radiant and SIM projects. Applications include: radiant systems using a domestic hot water tank as the heat source to separate heating water from drinking water (check local codes), SIM systems using concentration of glycol (antifreeze) different than the rest of the hydronic system. CSA and UL approved. Can provide more than $100,000 \mathrm{Btu} / \mathrm{hr}$, depending on temperatures and flow rates. Has 1/4-20 studs for mounting.


[^0]:    Copper adapter fittings connect RAUPEX pipe to copper pipe in sizes indicated. Make solder connection before connecting to RAUPEX pipe.

[^1]:    + This item is not stocked. Lead times may vary.
    *Recommended hole size to be drilled for proper installation.

[^2]:    Folding uncoiler is capable of holding RAUPEX coils up to 1 in.

