

## Tube clamps

ENGINEERING YOUR SUCCESS.

## Programme overview

| Tube clamps |
| :--- |
| series A |

## Tube clamps

## DIN 3015

## Programme:

## Tube clamps series A (according to DIN 3015 Part 1)

Available in seven standard sizes for normal mechanical requirements.

- Outer tube diameter for the metric series 6 to 57 mm
- Outer tube diameter for the inch-size series R $1 / 8^{\prime \prime}$ to $R 1^{1 / 2 \prime \prime}$
- Outer tube diameter for the imperial size series $1 / 4^{\prime \prime}$ to $2^{1 / 2 \prime \prime}$

The clamp body is available in a round/closed version. Welding plates, rail-supports, cover plates and construction types.

## Tube clamps series B (according to DIN 3015 Part 3)

Available as a twin tube clamp in five standard sizes for normal mechanical requirements.
Outer tube diameter 6 to 42 mm .
The clamp body is available in a square/open design.
Welding plates, rail-supports, cover plates and construction types.
Clamp halves with different diameters are only possible when used together.

## Tube clamps series C (according to DIN 3015 Part 2)

Specially designed for high mechanical requirements, and available in eight standard sizes.

- Outer tube diameter 6 to 220 mm .

The clamp body is available in a square/closed design.
Welding plates, rail-supports, cover plates and construction types.

## Design:

According to DIN 3015:
Both upper and lower clamp-halves are identical.
Webs inside the bore of the clamps provide an impact and vibration deadening effect, and absorb the forces towards the direction of the tube axis.
When using hoses and cables, we recommand the use of clamp halves with a smooth bore.

## Clamp material:

| Polypropylene | $-30^{\circ} \mathrm{C}$ up to | $+90^{\circ} \mathrm{C}$ | colour dark green |
| :--- | :---: | :--- | :--- |
| Polyamide | $-40^{\circ} \mathrm{C}$ up to $+120^{\circ} \mathrm{C}$ | colour black |  |
| Rubber | $-50^{\circ} \mathrm{C}$ up to $+120^{\circ} \mathrm{C}$ | colour black |  |
| Aluminium | up to $+300^{\circ} \mathrm{C}$ |  |  |

All metal parts available also in stainless steel.
Other materials upon request.
Stainless steel qualities
Stainless steel 1.4401/1.4571 (AISI 316/316 TI), resistent against rust and acid.

## Accessories material:

Steel. Screws as well as cover plates of series A and B are galvanized.
Rail-supports are also available with zinc plated surface.

## Resistance to stress:

The remarkable features of Tube Clamps are their considerable re-set capability, high tensile strength, as well as their very high output strength and excellent resistance to cold. The choice of design and clamp material depends on the specific demands of the mechanical and thermal requirements.

## Order code:

The order code for clamp halves as well as the reference No. for complete tube clamps incorporates the serial indication, material description and interior surface.

## Example of description:



## Registration:

On request

## Tube clamps material properties

DIN 3015

| Mechanical properties |  | Polypropylene (PP) | Polyamide 6 (PA 6) | Aluminium | Rubber |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Density |  | $0.906 \mathrm{~g} / \mathrm{cm}^{3}$ | $1.12-1.15 \mathrm{~g} / \mathrm{cm}^{3}$ | $2.65 \mathrm{~g} / \mathrm{cm}^{3}$ | $0.98 \mathrm{~g} / \mathrm{cm}^{3}$ |
| Flexural deflection | DIN 53452 | $36 \mathrm{~N} / \mathrm{mm}^{2}$ | 130... $200 \mathrm{~N} / \mathrm{mm}^{2}$ | $70 \mathrm{~N} / \mathrm{mm}^{2}$ | - |
| Impact resistance | DIN 53453 | no break | no break | - |  |
| Compressive strength | DIN 53454 | $90 \mathrm{~N} / \mathrm{mm}^{2}$ | $120 \mathrm{~N} / \mathrm{mm}^{2}$ | HB 500... $600 \mathrm{~N} / \mathrm{mm}^{2}$ | A and B: $64^{\circ}$ shore C: $\quad 73^{\circ}$ shore |
| Modulus of elasticity | DIN 53452 | $1500 \mathrm{~N} / \mathrm{mm}^{2}$ | $3000 \mathrm{~N} / \mathrm{mm}^{2}$ | $70.000 \mathrm{~N} / \mathrm{mm}^{2}$ |  |
| Tensile strength |  |  |  |  | A and B: $6.1 \mathrm{~N} / \mathrm{mm}^{2}$ |
| without breakage | DIN 53454 | 25-35 N/mm ${ }^{2}$ | 80-90 N/mm ${ }^{2}$ | $180 \mathrm{~N} / \mathrm{mm}^{2}$ | C: $\quad 8.5 \mathrm{~N} / \mathrm{mm}^{2}$ |


| Thermal properties |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Temp. resistance | $-30 \ldots+90^{\circ} \mathrm{C}$ | $-40 \ldots+120^{\circ} \mathrm{C}$ | $300^{\circ} \mathrm{C}$ | $-50 \ldots+120^{\circ} \mathrm{C}$ |


| Chemical properties |  |  |  |
| :--- | :--- | :--- | :--- |
| Weak acids | limited resistant | limited resistant | resistant |
| Weak alkalis | limited resistant | limited resistant | resistant |
| Alcohol | resistant | resistant | resistant |
| Petrol | limited resistant | resistant | limited resistant |
| Mineral oils | resistant | resistant | resistant |
| Other oils | resistant | resistant | resistant |

The outlined particulars are approximate values and are only shown for reference, which are not binding, and with regard to possible protection of third parties. They do not exempt you from your own examination of suitability of the products delivered by us. Therefore, these values can only be used in a limited way for guidance only.

The application of the products is carried out outside of our control and, therefore, is exclusively subject to your own area of responsibility. Any claim however would be limited for all damages to the value of the goods supplied by us and in use by you.
It goes without saying, that we guarantee the perfect quality of our products according to our general sales and delivery conditions.

## Tube clamps assembly instruction

DIN 3015


## Assembly on support rails

Support rails are available in four different heights and come in pieces of 1 m or 2 m length, as required.
Weld on support rail or screw-fasten with fastening angle bracket. Insert support rail nuts in rail and turn until stoppage. For heavy duty construction series, nuts are simply pushed in. Clamp lower clamp half on support rail nuts, insert tube, place upper clamp halve onto lower halve and fasten with the screws. Before fastening the screws the clamp may still be positioned. Attention must be paid to the bias (after completed assembly, the clamp halves may not be in contact)!


## Construction assembly

Clamps allow the assembly of multiple clamps of the same construction size and of different tube diameters one above the other. The construction assembly is carried out with special fixing screws that are secured against twisting by applying a locking plate. Clamp lower clamp halve on welding plate or support rail respectively, insert tube, place upper clamp halve on lower halve and fasten with fixing screws. The fixing screw juts out from the upper clamp halve. The application of a locking plate securely fastens the fixing screw and prevents twisting. Clamp on second clamp halve on to the fixing screws etc.

Tube clamps series A (Light construction series) - Components
DIN 3015, part 1

Order code for clamp halves:
Polypropylene- RAP
Inside smooth - RAPG
Polyamide 6 - RAN
Inside smooth - RANG
Rubber - RAVG
Aluminium - RAA ${ }^{1}$ )
(Please exchange as required standard abbreviation RAP in column for "clamp halves")

| clamp size | Tube O.D. mm a | Tube NB | Tube O.D. | 1 part 2 clamp halves |  | welding plate, short |  | e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | $\begin{array}{r} 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G 1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RAP006X <br> RAP006.4X <br> RAP008X <br> RAP009.5X <br> RAP010X <br> RAP012X | $28 \quad 27-13.5$ | APKA0X |  | 30 |
| 1 | $\begin{array}{r} 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G 1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RAP106X <br> RAP106.4X <br> RAP108X <br> RAP109.5X <br> RAP110X <br> RAP112X | $\begin{array}{lll}34 & 27 & 20 \\ 13.5\end{array}$ | APKA1X | 20 | 36 |
| 2 | $\begin{aligned} & \hline 12.7 \\ & 13.5 \\ & 14.0 \\ & 15.0 \\ & 16.0 \\ & 17.2 \\ & 18.0 \end{aligned}$ | G $1 / 4$ G 3/8 | $1 / 2$ $5 / 8$ | RAP212.7X <br> RAP213.5X <br> RAP214X <br> RAP215X <br> RAP216X <br> RAP217.2X <br> RAP218X | $40 \quad 33 \quad 2616.5$ | APKA2X | 26 | 42 |
| 3 | $\begin{aligned} & 19.0 \\ & 20.0 \\ & 21.3 \\ & 22.0 \\ & 23.0 \\ & 25.0 \end{aligned}$ | G 1/2 | $3 / 4$ <br> 1 | RAP319X <br> RAP320X <br> RAP321.3X <br> RAP322X <br> RAP323X <br> RAP325X | $48 \quad 35 \quad 3317.5$ | APKA3X | 33 | 50 |
| 4 | $\begin{aligned} & 26.9 \\ & 28.0 \\ & 30.0 \end{aligned}$ | G 3/4 |  | $\begin{aligned} & \text { RAP426.9X } \\ & \text { RAP428X } \\ & \text { RAP430X } \\ & \hline \end{aligned}$ | $57 \quad 42 \quad 4021$ | APKA 4X | 40 | 59 |
| 5 | $\begin{aligned} & 32.0 \\ & 33.7 \\ & 35.0 \\ & 38.0 \\ & 40.0 \\ & 42.0 \end{aligned}$ | G 1 $\text { G } 1 \frac{1}{4}$ | $\begin{aligned} & 11 / 4 \\ & 11 / 2 \end{aligned}$ | RAP532X <br> RAP533.7X <br> RAP535X <br> RAP538X <br> RAP540X <br> RAP542X | $70 \quad 58 \quad 5229$ | APKA5X | 52 | 72 |
| 6 | $\begin{aligned} & 44.5 \\ & 45.0 \\ & 48.0 \\ & 50.0 \\ & 50.8 \\ & 52.0 \\ & 55.0 \\ & 57.0 \end{aligned}$ | G 1112 | $13 / 4$ <br> 2 $21 / 4$ | RAP644.5X <br> RAP645X <br> RAP648X <br> RAP650X <br> RAP650.8X <br> RAP652X <br> RAP655X <br> RAP657X | $86 \quad 66 \quad 6633$ | APKA6X | 66 | 88 |

When assemblying solid rubber clamps, covering plates, hexagon screws and locking washers must be used. All metal parts available in stainless steel. ${ }^{1}$ ) Aluminium only sizes 1 to 6.

## Tube clamps series A (Light construction series) - Components

DIN 3015, part 1


Metal parts also available in stainless steel.

## Tube clamps series A (Light construction series) - Components

DIN 3015, part 1


Metal parts also available in stainless steel.

## Tube clamps series A (Light construction series) - Components

DIN 3015, part 1

|  |  |  | DIN 84 |  |  | DIN 931/933 | DIN912 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| clamp size | DP A... <br> Order code | plate <br> dimensions: <br> b <br> d | slo <br> SL A... <br> Order code | ead dimensions: $d \times L$ | hexagon SSL A... Order code | head dimensions: $d \times L$ | sock <br> IS A... <br> Order code | head dimensions: $d \times L$ |
| 0 | DPAOX | - - | SLAOX | M $6 \times 20$ | SSL10X | M $6 \times 30$ | ISAOX | M $6 \times 20$ |
| 1 | DPA1X | $34 \quad 20$ | SLA1X | M $6 \times 20$ | SSLAOX | M $6 \times 30$ | ISA1X | M $6 \times 20$ |
| 2 | DPA2X | 4026 | SLA2X | M $6 \times 25$ | SSLA2/SSB1X | M $6 \times 35$ | ISA2X | M $6 \times 25$ |
| 3 | DPA3X | $48 \quad 33$ | SLA3X | M $6 \times 30$ | SSLA3X | M $6 \times 40$ | ISA3X | M $6 \times 30$ |
| 4 | DPA4X | $57 \quad 40$ | SLA4X | M $6 \times 35$ | SSLA4X | M $6 \times 45$ | ISA4X | M $6 \times 35$ |
| 5 | DPA5X | $70 \quad 52$ | SLA5X | M $6 \times 50$ | SSLA5X | M $6 \times 60$ | ISA5X | M $6 \times 50$ |
| 6 | DPA6X | $86 \quad 66$ | SLA6X | M $6 \times 60$ | SSLA6X | M $6 \times 70$ | ISA6X | M $6 \times 60$ |

All metal parts available in stainless steel.

## Tube clamps series A (Light construction series) - Components

DIN 3015, part 1

${ }^{1}$ ) The use of stacking bolts necessitates the use of locking plates in the construction assembly.
${ }^{2}$ ) When assembling solid rubber clamps, cover plates, hexagon screws and locking washers must be used.
Metal parts also available in stainless steel.

## Tube clamps series A (Light construction series) - Complete range



Delivery in unassembled individual components.
${ }^{1}$ ) Contrary to the illustration size 0 clamps are secured by only one screw.

* Only with cover plate, hexagon screws and locking washers.

Tube clamps series A (Light construction series) - Complete range

Polypropylene- RAP
Inside smooth - RAPG
Polyamide 6 - RAN
Inside smooth - RANG
Rubber - RAVG*
Aluminium - RAA
(As required please exchange standard abbreviation RAP in column for "Order code")

| clamp size | Tube O.D. mm | Tube NB | Tube O.D. | Order code | Order code | Order code |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01) | $\begin{array}{r} 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G 1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RAP4-006 <br> RAP4-006.4 <br> RAP4-008 <br> RAP4-009.5 <br> RAP4-010 <br> RAP4-012 | RAP5-006 <br> RAP5-006.4 <br> RAP5-008 <br> RAP5-009.5 <br> RAP5-010 <br> RAP5-012 | RAP6-006 <br> RAP6-006.4 <br> RAP6-008 <br> RAP6-009.5 <br> RAP6-010 <br> RAP6-012 |
| 1 | $\begin{array}{r} 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G 1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RAP4-106 <br> RAP4-106.4 <br> RAP4-108 <br> RAP4-109.5 <br> RAP4-110 <br> RAP4-112 | RAP5-106 <br> RAP5-106.4 <br> RAP5-108 <br> RAP5-109.5 <br> RAP5-110 <br> RAP5-112 | RAP6-106 <br> RAP6-106.4 <br> RAP6-108 <br> RAP6-109.5 <br> RAP6-110 <br> RAP6-112 |
| 2 | $\begin{aligned} & 12.7 \\ & 13.5 \\ & 14.0 \\ & 15.0 \\ & 16.0 \\ & 17.2 \\ & 18.0 \end{aligned}$ | $\text { G } 1 / 4$ G 3/8 | $1 / 2$ $5 / 8$ | RAP4-212.7 <br> RAP4-213.5 <br> RAP4-214 <br> RAP4-215 <br> RAP4-216 <br> RAP4-217.2 <br> RAP4-218 | RAP5-212.7 <br> RAP5-213.5 <br> RAP5-214 <br> RAP5-215 <br> RAP5-216 <br> RAP5-217.2 <br> RAP5-218 | RAP6-212.7 <br> RAP6-213.5 <br> RAP6-214 <br> RAP6-215 <br> RAP6-216 <br> RAP6-217.2 <br> RAP6-218 |
| 3 | $\begin{aligned} & 19.0 \\ & 20.0 \\ & 21.3 \\ & 22.0 \\ & 23.0 \\ & 25.0 \end{aligned}$ | G ½ | $3 / 4$ <br> 1 | RAP4-319 <br> RAP4-320 <br> RAP4-321.3 <br> RAP4-322 <br> RAP4-323 <br> RAP4-325 | RAP5-319 <br> RAP5-320 <br> RAP5-321.3 <br> RAP5-322 <br> RAP5-323 <br> RAP5-325 | RAP6-319 <br> RAP6-320 <br> RAP6-321.3 <br> RAP6-322 <br> RAP6-323 <br> RAP6-325 |
| 4 | $\begin{aligned} & 26.9 \\ & 28.0 \\ & 30.0 \end{aligned}$ | G 3/4 |  | $\begin{aligned} & \text { RAP4-426.9 } \\ & \text { RAP4-428 } \\ & \text { RAP4-430 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { RAP5-426.9 } \\ & \text { RAP5-428 } \\ & \text { RAP5-430 } \end{aligned}$ | RAP6-426.9 <br> RAP6-428 <br> RAP6-430 |
| 5 | $\begin{aligned} & 32.0 \\ & 33.7 \\ & 35.0 \\ & 38.0 \\ & 40.0 \\ & 42.0 \end{aligned}$ | G 1 $\text { G } 1 \frac{1}{4}$ | $\begin{aligned} & 11 / 4 \\ & 11 / 2 \end{aligned}$ | RAP4-532 <br> RAP4-533.7 <br> RAP4-535 <br> RAP4-538 <br> RAP4-540 <br> RAP4-542 | RAP5-532 <br> RAP5-533.7 <br> RAP5-535 <br> RAP5-538 <br> RAP5-540 <br> RAP5-542 | RAP6-532 <br> RAP6-533.7 <br> RAP6-535 <br> RAP6-538 <br> RAP6-540 <br> RAP6-542 |
| 6 | $\begin{aligned} & 44.5 \\ & 45.0 \\ & 48.0 \\ & 50.0 \\ & 50.8 \\ & 52.0 \\ & 55.0 \\ & 57.0 \end{aligned}$ | G 111⁄2 | $1^{3 / 4}$ $2$ $2^{1 / 4}$ | $\begin{aligned} & \text { RAP4-644.5 } \\ & \text { RAP4-645 } \\ & \text { RAP4-648 } \\ & \text { RAP4-650 } \\ & \text { RAP4-650.8 } \\ & \text { RAP4-652 } \\ & \text { RAP4-655 } \\ & \text { RAP4-657 } \end{aligned}$ | RAP5-644.5 <br> RAP5-645 <br> RAP5-648 <br> RAP5-650 <br> RAP5-650.8 <br> RAP5-652 <br> RAP5-655 <br> RAP5-657 | RAP6-644.5 <br> RAP6-645 <br> RAP6-648 <br> RAP6-650 <br> RAP6-650.8 <br> RAP6-652 <br> RAP6-655 <br> RAP6-657 |

Delivery in unassembled individual components.
${ }^{1}$ ) Contrary to the illustration size 0 clamps are secured by only one screw.

* Only with cover plate, hexagon screws and locking washers.


## Tube clamps series A (Light construction series) - Complete range

Polypropylene- RAP
Inside smooth - RAPG
Polyamide 6 - RAN
Inside smooth - RANG
Rubber - RAVG*
Aluminium - RAA
(As required please exchange standard abbreviation RAP in column for "Order code")

| clamp size | Tube O.D. mm | Tube NB | Tube O.D. | Order code | Order code | Order code |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $0{ }^{1}$ ) | $\begin{array}{r} 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G 1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RAP9-006 <br> RAP9-006.4 <br> RAP9-008 <br> RAP9-009.5 <br> RAP9-010 <br> RAP9-012 | $\begin{aligned} & \hline \text { RAP10-006 } \\ & \text { RAP10-006.4 } \\ & \text { RAP10-008 } \\ & \text { RAP10-009.5 } \\ & \text { RAP10-010 } \\ & \text { RAP10-012 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { RAP12-006 } \\ & \text { RAP12-006.4 } \\ & \text { RAP12-008 } \\ & \text { RAP12-009.5 } \\ & \text { RAP12-010 } \\ & \text { RAP12-012 } \end{aligned}$ |
| 1 | $\begin{array}{r} 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G 1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RAP9-106 <br> RAP9-106.4 <br> RAP9-108 <br> RAP9-109.5 <br> RAP9-110 <br> RAP9-112 | RAP10-106 RAP10-106.4 RAP10-108 RAP10-109.5 RAP10-110 RAP10-112 | RAP12-106 <br> RAP12-106.4 <br> RAP12-108 <br> RAP12-109.5 <br> RAP12-110 <br> RAP12-112 |
| 2 | $\begin{aligned} & 12.7 \\ & 13.5 \\ & 14.0 \\ & 15.0 \\ & 16.0 \\ & 17.2 \\ & 18.0 \\ & \hline \end{aligned}$ | G $1 / 4$ <br> G 3/8 | $1 / 2$ $5 / 8$ | RAP9-212.7 <br> RAP9-213.5 <br> RAP9-214 <br> RAP9-215 <br> RAP9-216 <br> RAP9-217.2 <br> RAP9-218 | RAP10-212.7 <br> RAP10-213.5 <br> RAP10-214 <br> RAP10-215 <br> RAP10-216 <br> RAP10-217.2 <br> RAP10-218 | RAP12-212.7 <br> RAP12-213.5 <br> RAP12-214 <br> RAP12-215 <br> RAP12-216 <br> RAP12-217.2 <br> RAP12-218 |
| 3 | $\begin{aligned} & 19.0 \\ & 20.0 \\ & 21.3 \\ & 22.0 \\ & 23.0 \\ & 25.0 \end{aligned}$ | G 1⁄2 | $3 / 4$ $1$ | RAP9-319 <br> RAP9-320 <br> RAP9-321.3 <br> RAP9-322 <br> RAP9-323 <br> RAP9-325 | RAP10-319 <br> RAP10-320 <br> RAP10-321.3 <br> RAP10-322 <br> RAP10-323 <br> RAP10-325 | RAP12-319 <br> RAP12-320 <br> RAP12-321.3 <br> RAP12-322 <br> RAP12-323 <br> RAP12-325 |
| 4 | $\begin{aligned} & 26.9 \\ & 28.0 \\ & 30.0 \end{aligned}$ | G 3/4 |  | $\begin{aligned} & \text { RAP9-426.9 } \\ & \text { RAP9-428 } \\ & \text { RAP9-430 } \end{aligned}$ | $\begin{aligned} & \text { RAP10-426.9 } \\ & \text { RAP10-428 } \\ & \text { RAP10-430 } \end{aligned}$ | $\begin{aligned} & \text { RAP12-426.9 } \\ & \text { RAP12-428 } \\ & \text { RAP12-430 } \end{aligned}$ |
| 5 | $\begin{aligned} & 32.0 \\ & 33.7 \\ & 35.0 \\ & 38.0 \\ & 40.0 \\ & 42.0 \end{aligned}$ | $\begin{aligned} & \text { G } 1 \\ & \text { G } 11 / 4 \end{aligned}$ | $\begin{aligned} & 11 / 4 \\ & 11 / 2 \end{aligned}$ | RAP9-532 <br> RAP9-533.7 <br> RAP9-535 <br> RAP9-538 <br> RAP9-540 <br> RAP9-542 | RAP10-532 <br> RAP10-533.7 <br> RAP10-535 <br> RAP10-538 <br> RAP10-540 <br> RAP10-542 | RAP12-532 <br> RAP12-533.7 <br> RAP12-535 <br> RAP12-538 <br> RAP12-540 <br> RAP12-542 |
| 6 | $\begin{aligned} & 44.5 \\ & 45.0 \\ & 48.0 \\ & 50.0 \\ & 50.8 \\ & 52.0 \\ & 55.0 \\ & 57.0 \end{aligned}$ | G 11⁄2 | $\begin{gathered} 1^{13 / 4} \\ 2 \\ 21 / 4 \end{gathered}$ | RAP9-644.5 <br> RAP9-645 <br> RAP9-648 <br> RAP9-650 <br> RAP9-650.8 <br> RAP9-652 <br> RAP9-655 <br> RAP9-657 | RAP10-644.5 <br> RAP10-645 <br> RAP10-648 <br> RAP10-650 <br> RAP10-650.8 <br> RAP10-652 <br> RAP10-655 <br> RAP10-657 | RAP12-644.5 <br> RAP12-645 <br> RAP12-648 <br> RAP12-650 <br> RAP12-650.8 <br> RAP12-652 <br> RAP12-655 <br> RAP12-657 |

Delivery in unassembled individual components.
${ }^{1}$ ) Contrary to the illustration size 0 clamps are secured by only one screw.

* Only with cover plate, hexagon screws and locking washers.

Tube clamps

Tube clamps series A - Complete range


[^0]
## Tube clamps series A Complete range



Delivery in unassembled individual components.
${ }^{1}$ ) Contrary to the illustration size 0 clamps are secured by only one screw.

* Only with cover plate, hexagon screws and locking washers.


## Tube clamps series B (Twin-tube clamps) - Components

DIN 3015, part 3

Order code for clamp halves:
Polypropylene- RBP
Inside smooth - RBPG
Polyamide 6 - RBN
Rubber - RBVG
(Please exchange standard abbreviation RBP in column for "clamp halves" as required.)


Metal parts also available in stainless steel.
${ }^{1}$ ) Twin-tube clamps with different outer tube diameters upon request.

## Tube clamps series B (Twin-tube clamps) - Components

DIN 3015, part 3


## Tube clamps series B (Twin-tube clamps) - Components

DIN 3015, part 3

| clamp size |  |  |  | $\theta$ | DIN 931/933 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | cover plate |  |  | hexagonal head |  |
|  | DP B... Order code | $b^{d}$ | d | SS B... Order code | $\begin{aligned} & \text { dimensions: } \\ & \quad d \times L \end{aligned}$ |
| 1 | DPB1X | 34 | 6.6 | SSLA2/SSB1X | M $6 \times 35$ |
| 2 | DPB2X | 51 | 8.6 | SSB2X | M $8 \times 35$ |
| 3 | DPB3X | 64 | 8.6 | SSB3X | M $8 \times 45$ |
| 4 | DPB4X | 78 | 8.6 | SSB4X | M $8 \times 50$ |
| 5 | DPB5X | 102 | 8.6 | SSB5X | M $8 \times 60$ |

[^1]
## Tube clamps series B (Twin-tube clamps) - Components

DIN 3015, part 3

${ }^{1}$ ) The use of stacking screws necessitates the use of locking plates in the construction assembly!
${ }^{2}$ ) When assemblying solid rubber clamps, covering plates, hexagon screws and locking washers must be used. Metal parts also available in stainless steel.

## Tube clamps series B-Complete range

Polypropylene- RBP
Inside smooth - RBPG
Polyamide 6 - RBN
Rubber - RBVG*
(As required please exchange standard abbreviation RBP in column for "Order code")

| clamp size | Tube O.D. mm | Tube NB | Tube O.D. | Order code | Order code |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{array}{r} \hline 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RBP1-106 <br> RBP1-106.4 <br> RBP1-108 <br> RBP1-109.5 <br> RBP1-110 <br> RBP1-112 | RBP3-106 <br> RBP3-106.4 <br> RBP3-108 <br> RBP3-109.5 <br> RBP3-110 <br> RBP3-112 |
| 2 | $\begin{aligned} & 12.7 \\ & 13.5 \\ & 14.0 \\ & 15.0 \\ & 16.0 \\ & 17.2 \\ & 18.0 \end{aligned}$ | $\mathrm{G} 1 / 4$ $\mathrm{G}^{3} / 8$ | $1 / 2$ $5 / 8$ | RBP1-212.7 <br> RBP1-213.5 <br> RBP1-214 <br> RBP1-215 <br> RBP1-216 <br> RBP1-217.2 <br> RBP1-218 | RBP3-212.7 <br> RBP3-213.5 <br> RBP3-214 <br> RBP3-215 <br> RBP3-216 <br> RBP3-217.2 <br> RBP3-218 |
| 3 | $\begin{aligned} & 19.0 \\ & 20.0 \\ & 21.3 \\ & 22.0 \\ & 25.0 \\ & \hline \end{aligned}$ | G1⁄2 | $3 / 4$ <br> 1 | RBP1-319 <br> RBP1-320 <br> RBP1-321.3 <br> RBP1-322 <br> RBP1-325 | RBP3-319 <br> RBP3-320 <br> RBP3-321.3 <br> RBP3-322 <br> RBP3-325 |
| 4 | $\begin{aligned} & 26.9 \\ & 28.0 \\ & 30.0 \end{aligned}$ | G3/4 |  | $\begin{aligned} & \text { RBP1-426.9 } \\ & \text { RBP1-428 } \\ & \text { RBP1-430 } \end{aligned}$ | $\begin{aligned} & \text { RBP3-426.9 } \\ & \text { RBP3-428 } \\ & \text { RBP3-430 } \\ & \hline \end{aligned}$ |
| 5 | $\begin{aligned} & 32.0 \\ & 33.7 \\ & 35.0 \\ & 38.0 \\ & 42.0 \end{aligned}$ | G1 G11/4 | $\begin{aligned} & 11 / 4 \\ & 1^{11 / 2} \end{aligned}$ | RBP1-532 <br> RBP1-533.7 <br> RBP1-535 <br> RBP1-538 <br> RBP1-542 | RBP3-532 <br> RBP3-533.7 <br> RBP3-535 <br> RBP3-538 <br> RBP3-542 |

## Delivery in unassembled individual components.

*Only with cover plate, hexagon screws and locking washers.

Tube clamps

Tube clamps series B - Complete range

Polypropylene- RBP
Inside smooth - RBPG
Polyamide 6 - RBN
Rubber - RBVG*
(As required please exchange standard
abbreviation RBP in column for "Order code")

| clamp size | Tube O.D. mm | Tube NB | Tube O.D. | Order code | Order code | Order code |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{array}{r} 6.0 \\ 6.4 \\ 8.0 \\ 9.5 \\ 10.0 \\ 12.0 \end{array}$ | G 1/8 | $\begin{gathered} 1 / 4 \\ 5 / 16 \\ 3 / 8 \end{gathered}$ | RBP4-106 <br> RBP4-106.4 <br> RBP4-108 <br> RBP4-109.5 <br> RBP4-110 <br> RBP4-112 | RBP5-106 <br> RBP5-106.4 <br> RBP5-108 <br> RBP5-109.5 <br> RBP5-110 <br> RBP5-112 | RBP8-106 RBP8-106.4 RBP8-108 RBP8-109.5 RBP8-110 RBP8-112 |
| 2 | $\begin{aligned} & 12.7 \\ & 13.5 \\ & 14.0 \\ & 15.0 \\ & 16.0 \\ & 17.2 \\ & 18.0 \end{aligned}$ | $\text { G } 1 / 4$ G 3/8 | $1 / 2$ $5 / 8$ | RBP4-212.7 <br> RBP4-213.5 <br> RBP4-214 <br> RBP4-215 <br> RBP4-216 <br> RBP4-217.2 <br> RBP4-218 | RBP5-212.7 <br> RBP5-213.5 <br> RBP5-214 <br> RBP5-215 <br> RBP5-216 <br> RBP5-217.2 <br> RBP5-218 | RBP8-212.7 <br> RBP8-213.5 <br> RBP8-214 <br> RBP8-215 <br> RBP8-216 <br> RBP8-217.2 <br> RBP8-218 |
| 3 | $\begin{aligned} & 19.0 \\ & 20.0 \\ & 21.3 \\ & 22.0 \\ & 25.0 \end{aligned}$ | G 11⁄2 | $3 / 4$ $1$ | RBP4-319 <br> RBP4-320 <br> RBP4-321.3 <br> RBP4-322 <br> RBP4-325 | RBP5-319 <br> RBP5-320 <br> RBP5-321.3 <br> RBP5-322 <br> RBP5-325 | RBP8-319 <br> RBP8-320 <br> RBP8-321.3 <br> RBP8-322 <br> RBP8-325 |
| 4 | $\begin{aligned} & 26.9 \\ & 28.0 \\ & 30.0 \end{aligned}$ | G 3/4 |  | $\begin{aligned} & \text { RBP4-426.9 } \\ & \text { RBP4-428 } \\ & \text { RBP4-430 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { RBP5-426.9 } \\ & \text { RBP5-428 } \\ & \text { RBP5-430 } \end{aligned}$ | $\begin{aligned} & \text { RBP8-426.9 } \\ & \text { RBP8-428 } \\ & \text { RBP8-430 } \\ & \hline \end{aligned}$ |
| 5 | $\begin{aligned} & 32.0 \\ & 33.7 \\ & 35.0 \\ & 38.0 \\ & 42.0 \end{aligned}$ | $\text { G } 1$ $\text { G } 11 / 4$ | $\begin{aligned} & 11 / 4 \\ & 11 / 2 \end{aligned}$ | RBP4-532 <br> RBP4-533.7 <br> RBP4-535 <br> RBP4-538 <br> RBP4-542 | RBP5-532 <br> RBP5-533.7 <br> RBP5-535 <br> RBP5-538 <br> RBP5-542 | RBP8-532 <br> RBP8-533.7 <br> RBP8-535 <br> RBP8-538 <br> RBP8-542 |

Delivery in unassembled individual components.
*Only with cover plate, hexagon screws and locking washers.

## Tube clamps series C (Heavy series) - Components

DIN 3015, part 2


Continuation see next page ...

Tube clamps series C (Heavy series) - Components (Continued)

| Order code for clamp halves: |  |  |  |  |  |  |  |  |  | RCPD (= 2XRCP...) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Polypropylene- RCP <br> Inside smooth - RCPG ${ }^{1}$ ) <br> Polyamide 6 - RCN ${ }^{1}$ ) <br> Rubber - RCVR <br> Aluminium - RCA <br> (Please exchange as required standard abbreviation <br> RCP in column for "clamp halves") |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| clamp size | Tube O.D. mm | Tube NB | Tube O.D. | 1 part    <br> RCP... 2 clamp halves   <br> Order code b dimensions:  <br> c d e  |  |  |  |  |  | 1 part 4 clamp halves dimensions: |  |  |  |  |  |
| 5 | 70.0 73.0 75.0 76.1 80.0 82.5 88.9 90.0 | $\text { G } 2^{1 / 2}$ $\text { G } 3$ | $\begin{gathered} 3 \\ 31 / 4 \\ 31 / 2 \end{gathered}$ | RCP570X <br> RCP573X <br> RCP575X <br> RCP576.1X <br> RCP580X <br> RCP582.5X <br> RCP588.9X <br> RCP590X | 152 | 120 | 122 | 60 | 60 | RCPD570 <br> RCPD573 <br> RCPD575 <br> RCPD576.1 <br> RCPD580 <br> RCPD582.5 <br> RCPD588.9 <br> RCPD590 | 152 | 120 | 122 | 60 | 120 |
| 6 | $\begin{array}{r} 90.0 \\ 97.0 \\ 100.0 \\ 101.6 \\ 108.0 \\ 114.3 \\ 10.0 \end{array}$ | G 3112 <br> G 4 | $\begin{gathered} 4 \\ 41 / 4 \\ 41 / 2 \\ 5 \\ \hline \end{gathered}$ | RCP690X <br> RCP697X <br> RCP6100X <br> RCP6101.6X <br> RCP6108X <br> RCP6114.3X <br> RCP6127X | 205 | 170 | 168 | 85 | 80 | RCPD690 <br> RCPD697 <br> RCPD6100 <br> RCPD6101.6 <br> RCPD6108 <br> RCPD6114.3 <br> RCPD6127 | 205 | 170 |  | 85 | 160 |
| 7 | $\begin{aligned} & \hline 127.0 \\ & 133.0 \\ & 140.0 \\ & 150.0 \\ & 152.4 \\ & 159.0 \\ & 165.1 \\ & 168.3 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { G } 5 \\ \text { G } 51 / 2 \\ \text { G } 6 \end{gathered}$ | $\begin{gathered} \hline 5 \\ 51 / 4 \\ 51 / 2 \\ 6 \\ 61 / 4 \\ 61 / 2 \\ 65 / 8 \\ \hline \end{gathered}$ | RCP7127X <br> RCP7133X <br> RCP7140X <br> RCP7150X <br> RCP7152.4X <br> RCP7159X <br> RCP7165.1X <br> RCP7168.3X | 250 | 200 | 205 | 100 | 90 | RCPD7127 <br> RCPD7133 <br> RCPD7140 <br> RCPD7150 <br> RCPD7152.4 <br> RCPD7159 <br> RCPD7165.1 <br> RCPD7168.3 | 250 | 200 |  | 100 | 180 |
| 8 | $\begin{aligned} & 168.3 \\ & 177.8 \\ & 193.7 \\ & 203.0 \\ & 219.1 \\ & 220.0 \\ & \hline \end{aligned}$ | G 8 | $\begin{gathered} 65 / 8 \\ 7 \\ 75 / 8 \\ \\ 85 / 8 \end{gathered}$ | RCP8168.3X RCP8177.8X RCP8193.7X RCP8203X RCP8219.1X RCP8220X | 320 | 270 | 265 | 135 | 120 | RCPD8168.3 RCPD8177.8 RCPD8193.7 RCPD8203 RCPD8219.1 RCPD8220 | 320 | 270 | 265 | 135 | 240 |
| 9 | $\begin{aligned} & 219.1 \\ & 244.5 \\ & 250.0 \\ & 273.0 \\ & 323.9 \end{aligned}$ | G8 |  | RCP9219.1X <br> RCP9244.5X <br> RCP9250X <br> RCP9273X <br> RCP9323.9X | 466 | 410 | 395 | 205 | 160 |  |  |  |  |  |  |
| 10 | $\begin{aligned} & 355.6 \\ & 406.4 \end{aligned}$ | $\begin{aligned} & \text { G10 } \\ & \text { G12 } \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \text { RCP10355.6X } \\ & \text { RCP10406.4X } \end{aligned}$ | 630 | 530 | 530 | 265 | 180 |  |  |  |  |  |  |

Metal parts also available in stainless steel.
${ }^{1}$ ) Only sizes 1-4

Tube clamps series C (Heavy series) - Components
DIN 3015, part 2


Metal parts also available in stainless steel.
Complete programme range please refer to page 240.

## Tube clamps series C (Heavy series) - Components

DIN 3015, part 2


Metal parts also available in stainless steel.

Tube clamps series C (Heavy series) - Components
DIN 3015, part 2

${ }^{1}$ ) The use of stacking screws necessitates the use of locking plates in the construction assembly!
${ }^{2}$ ) When assemblying solid rubber clamps, covering plates, hexagon screws and locking washers must be used.
Metal parts also available in stainless steel.

## Tube clamps series C - Complete range



[^2]
## Tube clamps series C - Complete range (Continued)



[^3]${ }^{1}$ ) Only sizes 1-4

* Only with cover plate, hexagon screws and locking washers (only sizes 1-4).

Tube clamps

Tube clamps series $\mathbf{C}$ - Complete range


[^4]Tube clamps series C - Complete range (Continued)

Polypropylene- RCP
Inside smooth - RCPG ${ }^{1}$ )
Polyamide 6 - RCN
Rubber - RCVR*
Aluminium - RCA
(As required please exchange standard abbreviation
RCP in column for "Order code")

| clamp size | Tube O.D. mm | Tube NB | Tube O.D. | Order code |
| :---: | :---: | :---: | :---: | :---: |
| 5 | $\begin{aligned} & \hline 70.0 \\ & 73.0 \\ & 75.0 \\ & 76.1 \\ & 80.0 \\ & 82.5 \\ & 88.9 \\ & 90.0 \\ & \hline \end{aligned}$ | $\text { G } 21 / 2$ $\text { G } 3$ | $\begin{gathered} 3 \\ 31 / 4 \\ 31 / 2 \end{gathered}$ | RCP5-570 <br> RCP5-573 <br> RCP5-575 <br> RCP5-576.1 <br> RCP5-580 <br> RCP5-582.5 <br> RCP5-588.9 <br> RCP5-590 |
| 6 | $\begin{array}{r} 90.0 \\ 97.0 \\ 100.0 \\ 101.6 \\ 108.0 \\ 114.3 \\ 127.0 \end{array}$ | $\text { G } 31 / 2$ <br> G 4 | $\begin{gathered} 4 \\ 41 / 4 \\ 41 / 2 \\ 5 \\ \hline \end{gathered}$ | RCP5-690 <br> RCP5-697 <br> RCP5-6100 <br> RCP5-6101.6 <br> RCP5-6108 <br> RCP5-6114.3 <br> RCP5-6127 |
| 7 | $\begin{aligned} & \hline 127.0 \\ & 133.0 \\ & 140.0 \\ & 150.0 \\ & 152.4 \\ & 159.0 \\ & 165.1 \\ & 168.3 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { G } 5 \\ \text { G } 51 / 2 \\ \text { G } 6 \end{gathered}$ | $\begin{gathered} \hline 5 \\ 51 / 4 \\ 51 / 2 \\ 6 \\ 61 / 4 \\ 61 / 2 \\ 65 / 8 \end{gathered}$ | RCP5-7127 <br> RCP5-7133 <br> RCP5-7140 <br> RCP5-7150 <br> RCP5-7152.4 <br> RCP5-7159 <br> RCP5-7165.1 <br> RCP5-7168.3 |
| 8 | $\begin{aligned} & \hline 168.3 \\ & 177.8 \\ & 193.7 \\ & 203.0 \\ & 219.1 \\ & 220.0 \end{aligned}$ | G 8 | $\begin{gathered} 65 / 8 \\ 7 \\ 75 / 8 \\ \\ 85 / 8 \end{gathered}$ | RCP5-8168.3 <br> RCP5-8177.8 <br> RCP5-8193.7 <br> RCP5-8203 <br> RCP5-8219.1 <br> RCP5-8220 |

## Delivery in unassembled individual components.

${ }^{1}$ ) Only sizes 1-4

* Only with cover plate, hexagon screws and locking washers (only sizes 1-4).

2 clamp halves, locking
plate, stacking bolts

SPC...

ASC...


RCP...

## Tube clamps series C - Complete range



[^5]
## Tube clamps series C - Complete range (Continued)

Polypropylene- RCPD
Inside smooth - RCPDG ${ }^{1}$ )
Polyamide 6 - RCND
Rubber - RCVDR*
Aluminium

- RCAD
(As required please exchange standard abbreviation RCP in column for "Order code")
4 clamp halves, double weld plate,

double cover plate, hex. head bolts | 4 clamp halves, double weld |
| :--- |
| plate, double cover plate, socket |
| head bolts |

[^6]${ }^{1}$ ) Only sizes 1-4

* Only with cover plate, hexagon screws and locking washers (only sizes 1-4).

Tube clamp series $\mathbf{C}$ with absorbing noise insert


| 3 | 30.0 | DPEC3X | APCD3X | M10X90 | 85 | 97 | 52 | 15 | 7 | 30 | 60 | 100 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 32.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 33.7 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 38.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 40.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 42.0 |  |  |  |  |  |  |  |  |  |  |  |  |


| 4 | 38.0 | DPEC4X | APCD4X | M12X130 | 115 | 134 | 72 | 20 | 7 | 45 | 90 | 140 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 40.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 42.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 45.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 48.3 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 51.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 52.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 54.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 55.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 57.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 60.3 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 63.5 <br> 65.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 70.0 |  |  |  |  |  |  |  |  |  |  |  |  |

Tube clamp series $\mathbf{C}$ with absorbing noise insert

| $\begin{aligned} & \text { Clamp } \\ & \text { size } \end{aligned}$ | $\left\lvert\, \begin{array}{c\|} \text { Tube } \\ \text { O.D.mm } \end{array}\right.$ | Absorbing plate | Weld plate | Bolt ISO 4014 | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | H9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 70.0 | DPEC5X | APCD5X | M16X160 | 152 | 165 | 90 | 25 | 7 | 60 | 122 | 180 | 10 |
|  | 73.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 75.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 76.1 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 82.5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 88.9 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 90.0 |  |  |  |  |  |  |  |  |  |  |  |  |


| 6 | 90.0 | DPEC6X | APCD6X | M20X230 | 205 | 237 | 126 | 30 | 11 | 80 | 168 | 228 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 97.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 101.6 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 108.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 114.3 127.0 |  |  |  |  |  |  |  |  |  |  |  |  |


| 7 | 127.0 | DPEC7X | APCD7X | M24X260 | 250 | 287 | 161 | 50 | 11 | 90 | 205 | 270 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 130.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 140.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 141.3 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 150.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 159.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 165.1 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 168,3 |  |  |  |  |  |  |  |  |  |  |  |  |


| 8 | 168.3 | DPEC8X | APCD8X | M30X360 | 322 | 407 | 231 | 80 | 16 | 120 | 265 | 340 | 25 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 177.8 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 203.0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 219.1 220.0 |  |  |  |  |  |  |  |  |  |  |  |  |


[^0]:    Delivery in unassembled individual components.
    ${ }^{1}$ ) Contrary to the illustration size 0 clamps are secured by only one screw.

    * Only with cover plate, hexagon screws and locking washers.

[^1]:    Metal parts also available in stainless steel.

[^2]:    Continuation see next page ..

[^3]:    Delivery in unassembled individual components.

[^4]:    Continuation see next page ...

[^5]:    Continuation see next page ...

[^6]:    Delivery in unassembled individual components.

