



ACO pipe

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Introduction

ACO pipe is the ideal system for gray and black water, rainwater and industrial waste water drainage applications. When used with ACO gully and ACO channel systems, ACO pipe provides a unique, complex building drainage solution.

ACO pipe and fittings are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters with the standard lengths from 0.15 meter up to 6 meter for optimum practicality and ease of assembly.

ACO pipe push-fit connection

Reliable for vacuum and gravity piping systems.

ACO pipe double lip seal delivers the ultimate system reliability. The unique and sophisticated design of lips and cavities provide tight connections.

Push-fit advantages

- Easy to assemble
- Time saving
- Cost saving
- Tight connection



System overview

Straight pipes



Bends



Branches



Accessories

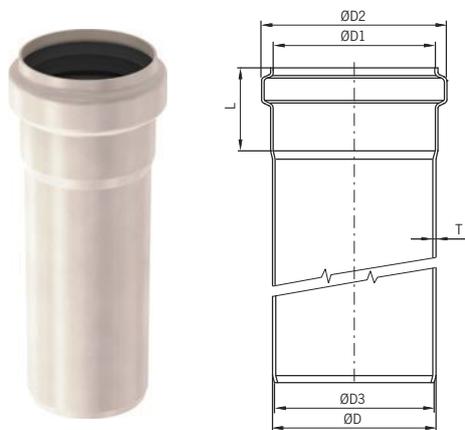


Straight pipes

Product information

- Pipes are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Lengths from 0.15 meter up to 6 meter
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully comply to EN 1124
- EPDM and Viton® seals available
- Fully pickled and passivated

ACO pipe - straight pipe



ACO pipe - double socketed pipe

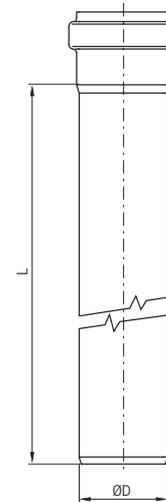


ACO pipe

| Dimensions of socket and spigot | | | | | |
|---------------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| ØD [mm] | ØD ₁ [mm] | ØD ₂ [mm] | ØD ₃ [mm] | Socket length L [mm] | Wall thickness T [mm] |
| 50 | 51 | 62.0 | 47 | 42 | 1 |
| 75 | 76 | 87.5 | 72 | 50 | 1 |
| 110 | 111 | 125.5 | 107 | 57 | 1 |
| 125 | 126 | 141.0 | 122 | 63 | 1 |
| 160 | 161 | 178.0 | 156 | 70 | 1.25 |
| 200 | 201 | 219.0 | 195 | 80 | 1.5 |
| 250 | 251 | 268.6 | 245 | 90 | 1.5 |

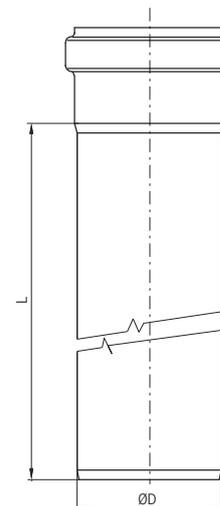
ACO pipe - straight pipe 50 mm

| Seal material | Outlet diameter | Active length | Weight | Item number | Item number |
|---------------|-----------------|---------------|---------------|---------------|---------------|
| | ØD [mm] | L [mm] | [kg] | 1.4301 | 1.4404 |
| EPDM | 50 | 150 | 0.2 | 98500 | 98550 |
| | 50 | 250 | 0.4 | 98502 | 98552 |
| | 50 | 500 | 0.7 | 98504 | 98554 |
| | 50 | 750 | 1.0 | 98506 | 98556 |
| | 50 | 1000 | 1.3 | 98508 | 98558 |
| | 50 | 1500 | 1.9 | 98510 | 98560 |
| | 50 | 2000 | 2.6 | 98512 | 98562 |
| | 50 | 2500 | 3.2 | 419274 | 419282 |
| | 50 | 3000 | 3.8 | 98514 | 98564 |
| | 50 | 4000 | 5.0 | 419458 | 419482 |
| | 50 | 5000 | 6.3 | 419466 | 419490 |
| Viton | 50 | 150 | 0.2 | 98501 | 98551 |
| | 50 | 250 | 0.4 | 98503 | 98553 |
| | 50 | 500 | 0.7 | 98505 | 98555 |
| | 50 | 750 | 1.0 | 98507 | 98557 |
| | 50 | 1000 | 1.3 | 98509 | 98559 |
| | 50 | 1500 | 1.9 | 98511 | 98561 |
| | 50 | 2000 | 2.6 | 98513 | 98563 |
| | 50 | 2500 | 3.2 | 419275 | 419283 |
| | 50 | 3000 | 3.8 | 98515 | 98565 |
| | 50 | 4000 | 5.0 | 419459 | 419483 |
| | 50 | 5000 | 6.3 | 419467 | 419491 |
| 50 | 6000 | 7.5 | 419475 | 419499 | |



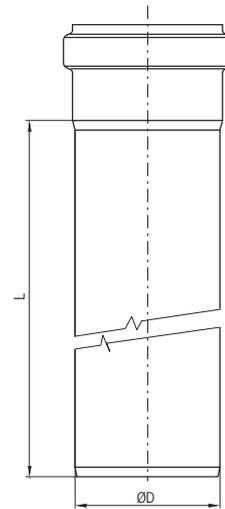
ACO pipe - straight pipe 75 mm

| Seal material | Outlet diameter | Active length | Weight | Item number | Item number |
|---------------|-----------------|---------------|---------------|---------------|---------------|
| | ØD [mm] | L [mm] | [kg] | 1.4301 | 1.4404 |
| EPDM | 75 | 150 | 0.4 | 98516 | 98566 |
| | 75 | 250 | 0.6 | 98518 | 98568 |
| | 75 | 500 | 1.0 | 98520 | 98570 |
| | 75 | 750 | 1.5 | 98522 | 98572 |
| | 75 | 1000 | 2.0 | 98524 | 98574 |
| | 75 | 1500 | 2.9 | 98526 | 98576 |
| | 75 | 2000 | 3.6 | 98528 | 98578 |
| | 75 | 2500 | 4.8 | 419276 | 419284 |
| | 75 | 3000 | 5.7 | 98530 | 98580 |
| | 75 | 4000 | 7.6 | 419460 | 419484 |
| | 75 | 5000 | 9.4 | 419468 | 419492 |
| Viton | 75 | 150 | 0.4 | 98517 | 98567 |
| | 75 | 250 | 0.6 | 98519 | 98569 |
| | 75 | 500 | 1.0 | 98521 | 98571 |
| | 75 | 750 | 1.5 | 98523 | 98573 |
| | 75 | 1000 | 2.0 | 98525 | 98575 |
| | 75 | 1500 | 2.9 | 98527 | 98577 |
| | 75 | 2000 | 3.6 | 98529 | 98579 |
| | 75 | 2500 | 4.8 | 419277 | 419285 |
| | 75 | 3000 | 5.7 | 98531 | 98581 |
| | 75 | 4000 | 7.6 | 419461 | 419485 |
| | 75 | 5000 | 9.4 | 419469 | 419493 |
| 75 | 6000 | 11.3 | 419477 | 419501 | |



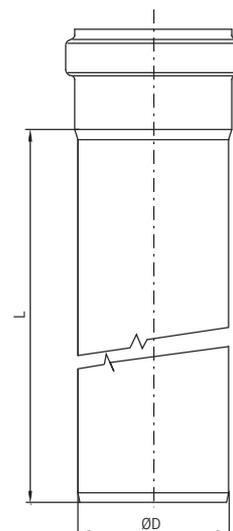
ACO pipe - straight pipe 110 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 110 | 150 | 0.6 | 98532 | 98582 |
| | 110 | 250 | 0.9 | 98534 | 98584 |
| | 110 | 500 | 1.5 | 98536 | 98586 |
| | 110 | 750 | 2.2 | 98538 | 98588 |
| | 110 | 1000 | 2.9 | 98540 | 98590 |
| | 110 | 1500 | 4.3 | 98542 | 98592 |
| | 110 | 2000 | 5.7 | 98544 | 98594 |
| | 110 | 2500 | 7.1 | 419278 | 419286 |
| | 110 | 3000 | 8.4 | 98546 | 98596 |
| | 110 | 4000 | 11.1 | 419462 | 419486 |
| | 110 | 5000 | 13.9 | 419470 | 419494 |
| 110 | 6000 | 16.7 | 419478 | 419502 | |
| Viton | 110 | 150 | 0.6 | 98533 | 98583 |
| | 110 | 250 | 0.9 | 98535 | 98585 |
| | 110 | 500 | 1.5 | 98537 | 98587 |
| | 110 | 750 | 2.2 | 98539 | 98589 |
| | 110 | 1000 | 2.9 | 98541 | 98591 |
| | 110 | 1500 | 4.3 | 98543 | 98593 |
| | 110 | 2000 | 5.7 | 98545 | 98595 |
| | 110 | 2500 | 7.1 | 419279 | 419287 |
| | 110 | 3000 | 8.4 | 98547 | 98597 |
| | 110 | 4000 | 11.1 | 419463 | 419487 |
| | 110 | 5000 | 13.9 | 419471 | 419495 |
| 110 | 6000 | 16.7 | 419479 | 419503 | |



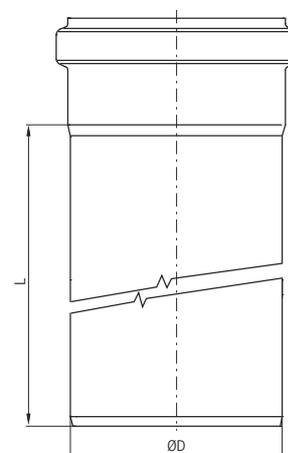
ACO pipe - straight pipe 125 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 125 | 150 | 0.7 | 419692 | 419712 |
| | 125 | 250 | 1.0 | 419694 | 419714 |
| | 125 | 500 | 1.7 | 419696 | 419716 |
| | 125 | 750 | 2.5 | 419698 | 419718 |
| | 125 | 1000 | 3.3 | 419700 | 419720 |
| | 125 | 1500 | 4.9 | 419702 | 419722 |
| | 125 | 2000 | 6.5 | 419704 | 419724 |
| | 125 | 2500 | 8.1 | 419708 | 419728 |
| | 125 | 3000 | 9.6 | 419706 | 419726 |
| | 125 | 6000 | 19.0 | 419710 | 419730 |
| Viton | 125 | 150 | 0.7 | 419693 | 419713 |
| | 125 | 250 | 1.0 | 419695 | 419715 |
| | 125 | 500 | 1.7 | 419697 | 419717 |
| | 125 | 750 | 2.5 | 419699 | 419719 |
| | 125 | 1000 | 3.3 | 419701 | 419721 |
| | 125 | 1500 | 4.9 | 419703 | 419723 |
| | 125 | 2000 | 6.5 | 419705 | 419725 |
| | 125 | 2500 | 8.1 | 419707 | 419727 |
| | 125 | 3000 | 9.6 | 419709 | 419729 |
| | 125 | 6000 | 19.0 | 419711 | 419731 |



ACO pipe - straight pipe 160 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 160 | 150 | 1.1 | 98548 | 98598 |
| | 160 | 250 | 1.6 | 98600 | 98650 |
| | 160 | 500 | 2.9 | 98602 | 98652 |
| | 160 | 750 | 4.1 | 98604 | 98654 |
| | 160 | 1000 | 5.4 | 98606 | 98656 |
| | 160 | 1500 | 7.9 | 98608 | 98658 |
| | 160 | 2000 | 10.4 | 98610 | 98660 |
| | 160 | 2500 | 12.9 | 419280 | 419288 |
| | 160 | 3000 | 15.4 | 98612 | 98662 |
| | 160 | 4000 | 20.4 | 419464 | 419488 |
| Viton | 160 | 5000 | 25.4 | 419472 | 419496 |
| | 160 | 6000 | 30.4 | 419480 | 419504 |
| | 160 | 150 | 1.1 | 98549 | 98599 |
| | 160 | 250 | 1.6 | 98601 | 98651 |
| | 160 | 500 | 2.9 | 98603 | 98653 |
| | 160 | 750 | 4.1 | 98605 | 98655 |
| | 160 | 1000 | 5.4 | 98607 | 98657 |
| | 160 | 1500 | 7.9 | 98609 | 98659 |
| | 160 | 2000 | 10.4 | 98611 | 98661 |
| | 160 | 2500 | 12.9 | 419281 | 419289 |
| 160 | 3000 | 15.4 | 98613 | 98663 | |
| 160 | 4000 | 20.4 | 419465 | 419489 | |
| 160 | 5000 | 25.4 | 419473 | 419497 | |
| 160 | 6000 | 30.4 | 419481 | 419505 | |



ACO pipe - straight pipe 200 mm

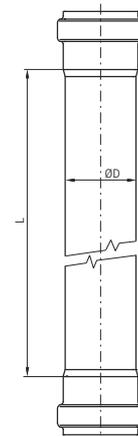
| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 200 | 500 | 4.5 | 419383 | 419384 |
| | 200 | 1000 | 8.3 | 419387 | 419388 |
| | 200 | 2000 | 15.8 | 419391 | 419392 |
| | 200 | 3000 | 23.2 | 419395 | 419396 |
| Viton | 200 | 500 | 4.5 | 419385 | 419386 |
| | 200 | 1000 | 8.3 | 419389 | 419390 |
| | 200 | 2000 | 15.8 | 419393 | 419394 |
| | 200 | 3000 | 23.2 | 419397 | 419398 |

ACO pipe - straight pipe 250 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 250 | 500 | 5.5 | 417071 | 417072 |
| | 250 | 1000 | 10.2 | 417075 | 417076 |
| | 250 | 2000 | 19.4 | 417079 | 417080 |
| | 250 | 3000 | 28.7 | 417083 | 417084 |
| Viton | 250 | 500 | 5.5 | 417073 | 417074 |
| | 250 | 1000 | 10.2 | 417077 | 417078 |
| | 250 | 2000 | 19.4 | 417081 | 417082 |
| | 250 | 3000 | 28.7 | 417085 | 417086 |

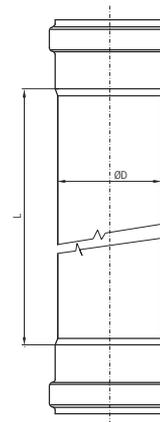
ACO pipe - double socketed pipe 50 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 50 | 250 | 0.4 | 419554 | 419594 |
| | 50 | 500 | 0.7 | 419556 | 419596 |
| | 50 | 750 | 1.1 | 419558 | 419598 |
| | 50 | 1000 | 1.4 | 419560 | 419600 |
| | 50 | 1500 | 2.0 | 419562 | 419602 |
| | 50 | 2000 | 2.6 | 419564 | 419604 |
| | 50 | 3000 | 3.9 | 419566 | 419606 |
| Viton | 50 | 250 | 0.4 | 419555 | 419595 |
| | 50 | 500 | 0.7 | 419557 | 419597 |
| | 50 | 750 | 1.1 | 419559 | 419599 |
| | 50 | 1000 | 1.4 | 419561 | 419601 |
| | 50 | 1500 | 2.0 | 419563 | 419603 |
| | 50 | 2000 | 2.6 | 419565 | 419605 |
| | 50 | 3000 | 3.9 | 419567 | 419607 |



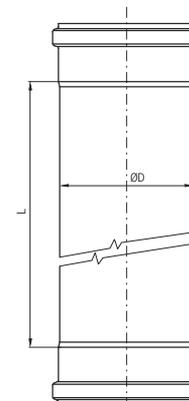
ACO pipe - double socketed pipe 75 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 75 | 250 | 0.7 | 419568 | 419608 |
| | 75 | 500 | 1.2 | 419570 | 419610 |
| | 75 | 750 | 1.6 | 419572 | 419612 |
| | 75 | 1000 | 2.1 | 419574 | 419614 |
| | 75 | 1500 | 3.0 | 419576 | 419616 |
| | 75 | 2000 | 4.0 | 419578 | 419618 |
| | 75 | 3000 | 5.8 | 419580 | 419620 |
| Viton | 75 | 250 | 0.7 | 419569 | 419609 |
| | 75 | 500 | 1.2 | 419571 | 419611 |
| | 75 | 750 | 1.6 | 419573 | 419613 |
| | 75 | 1000 | 2.1 | 419575 | 419615 |
| | 75 | 1500 | 3.0 | 419577 | 419617 |
| | 75 | 2000 | 4.0 | 419579 | 419619 |
| | 75 | 3000 | 5.8 | 419581 | 419621 |



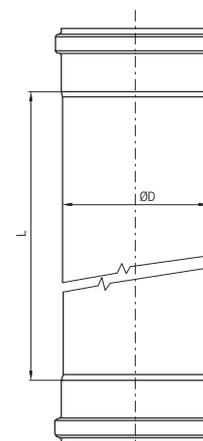
ACO pipe - double socketed pipe 110 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 110 | 500 | 1.7 | 419582 | 419622 |
| | 110 | 750 | 2.4 | 419584 | 419624 |
| | 110 | 1000 | 3.0 | 419586 | 419626 |
| | 110 | 1500 | 4.4 | 419588 | 419628 |
| | 110 | 2000 | 5.7 | 419590 | 419630 |
| | 110 | 3000 | 8.4 | 419592 | 419632 |
| Viton | 110 | 500 | 1.7 | 419583 | 419623 |
| | 110 | 750 | 2.4 | 419585 | 419625 |
| | 110 | 1000 | 3.0 | 419587 | 419627 |
| | 110 | 1500 | 4.4 | 419589 | 419629 |
| | 110 | 2000 | 5.7 | 419591 | 419631 |
| | 110 | 3000 | 8.4 | 419593 | 419633 |



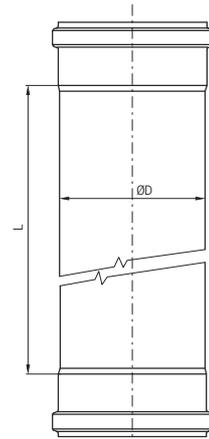
ACO pipe - double socketed pipe 125 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 125 | 500 | 1.7 | 419787 | 419799 |
| | 125 | 750 | 2.5 | 419789 | 419801 |
| | 125 | 1000 | 3.3 | 419791 | 419803 |
| | 125 | 1500 | 4.9 | 419793 | 419805 |
| | 125 | 2000 | 6.5 | 419795 | 419807 |
| | 125 | 3000 | 9.6 | 419797 | 419809 |
| Viton | 125 | 500 | 1.7 | 419788 | 419800 |
| | 125 | 750 | 2.5 | 419790 | 419802 |
| | 125 | 1000 | 3.3 | 419792 | 419804 |
| | 125 | 1500 | 4.9 | 419794 | 419806 |
| | 125 | 2000 | 6.5 | 419796 | 419808 |
| | 125 | 3000 | 9.6 | 419798 | 419810 |



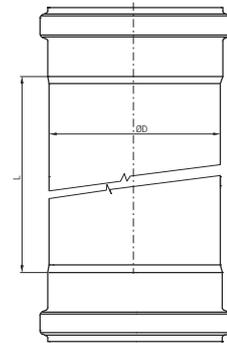
ACO pipe - double socketed pipe 160 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 160 | 500 | 3.3 | 419634 | 419646 |
| | 160 | 750 | 4.5 | 419636 | 419648 |
| | 160 | 1000 | 5.8 | 419638 | 419650 |
| | 160 | 1500 | 8.2 | 419640 | 419652 |
| | 160 | 2000 | 10.7 | 419642 | 419654 |
| | 160 | 3000 | 15.7 | 419644 | 419656 |
| Viton | 160 | 500 | 3.3 | 419635 | 419647 |
| | 160 | 750 | 4.5 | 419637 | 419649 |
| | 160 | 1000 | 5.8 | 419639 | 419651 |
| | 160 | 1500 | 8.2 | 419641 | 419653 |
| | 160 | 2000 | 10.7 | 419643 | 419655 |
| | 160 | 3000 | 15.7 | 419645 | 419657 |



ACO pipe - double socketed pipe 200 mm

| Seal material | Outlet diameter ØD [mm] | Active length L [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|-------------------------|----------------|-----------------------|-----------------------|
| EPDM | 200 | 500 | 5.0 | 419658 | 419659 |
| | 200 | 1000 | 8.6 | 419662 | 419663 |
| | 200 | 2000 | 15.9 | 419666 | 419667 |
| | 200 | 3000 | 23.1 | 419670 | 419671 |
| Viton | 200 | 500 | 5.0 | 419660 | 419661 |
| | 200 | 1000 | 8.6 | 419664 | 419665 |
| | 200 | 2000 | 15.9 | 419668 | 419669 |
| | 200 | 3000 | 23.1 | 419672 | 419673 |

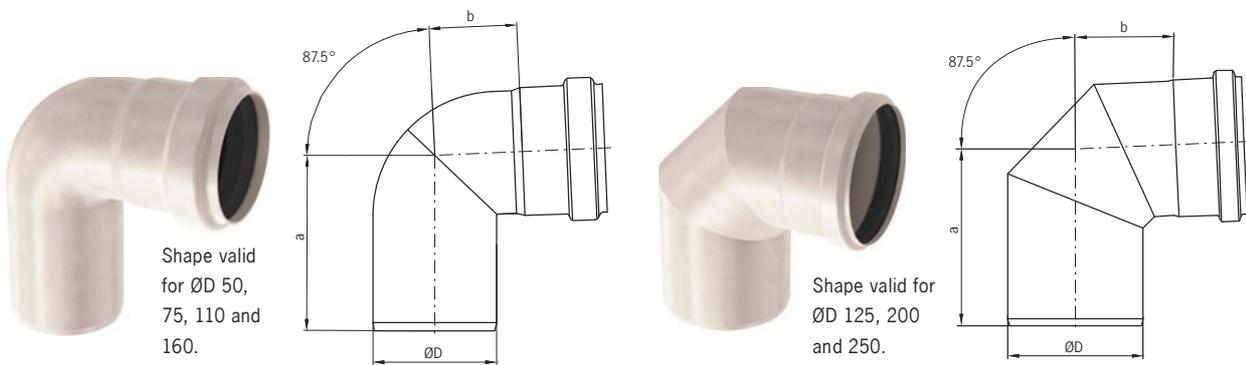


Bends

Product information

- Bends are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully chemically pickled and passivated
- EPDM and Viton® seals available
- Fully comply to EN 1124

ACO pipe - bend 87.5°

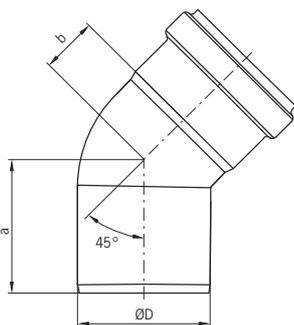


| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 86 | 40 | 0.2 | 98700 | 98750 |
| | 75 | 107 | 53 | 0.4 | 98702 | 98752 |
| | 110 | 134 | 67 | 0.7 | 98704 | 98754 |
| | 125 | 161 | 93 | 0.8 | 419732 | 419734 |
| | 160 | 181 | 105 | 1.7 | 98706 | 98756 |
| | 200 | 215 | 129 | 3.9 | 419411 | 419413 |
| | 250 | 297 | 198 | 5.1 | 417087 | 417088 |
| Viton | 50 | 86 | 40 | 0.2 | 98701 | 98751 |
| | 75 | 107 | 53 | 0.4 | 98703 | 98753 |
| | 110 | 134 | 67 | 0.7 | 98705 | 98755 |
| | 125 | 161 | 93 | 0.8 | 419733 | 419735 |
| | 160 | 181 | 105 | 1.7 | 98707 | 98757 |
| | 200 | 215 | 129 | 3.9 | 419412 | 419414 |
| | 250 | 297 | 198 | 5.1 | 417089 | 417090 |

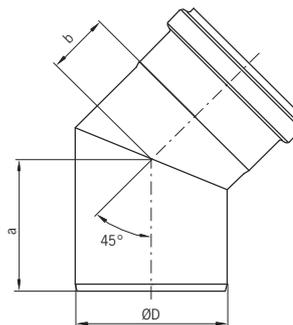
ACO pipe - bend 45°



Shape valid
for ØD 50, 75,
110 and 160.

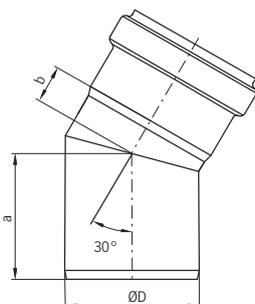


Shape valid for
ØD 125, 200
and 250.



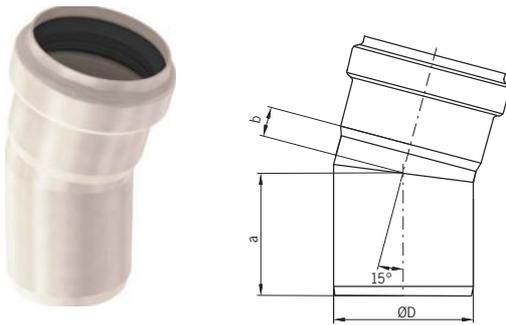
| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|------------|--------|----------------|-----------------------|-----------------------|
| | | a [mm] | b [mm] | | | |
| EPDM | 50 | 62 | 24 | 0.2 | 98708 | 98758 |
| | 75 | 76 | 32 | 0.3 | 98710 | 98760 |
| | 110 | 93 | 42 | 0.5 | 98712 | 98762 |
| | 125 | 110 | 50 | 0.6 | 419736 | 419738 |
| | 160 | 131 | 55 | 1.3 | 98714 | 98764 |
| | 200 | 152 | 60 | 2.7 | 419407 | 419409 |
| Viton | 250 | 177 | 76 | 4.1 | 417091 | 417092 |
| | 50 | 62 | 24 | 0.2 | 98709 | 98759 |
| | 75 | 76 | 32 | 0.3 | 98711 | 98761 |
| | 110 | 93 | 42 | 0.5 | 98713 | 98763 |
| | 125 | 110 | 50 | 0.6 | 419737 | 419739 |
| | 160 | 131 | 55 | 1.3 | 98715 | 98765 |
| | 200 | 152 | 60 | 2.7 | 419408 | 419410 |
| | 250 | 177 | 76 | 4.1 | 417093 | 417094 |

ACO pipe - bend 30°



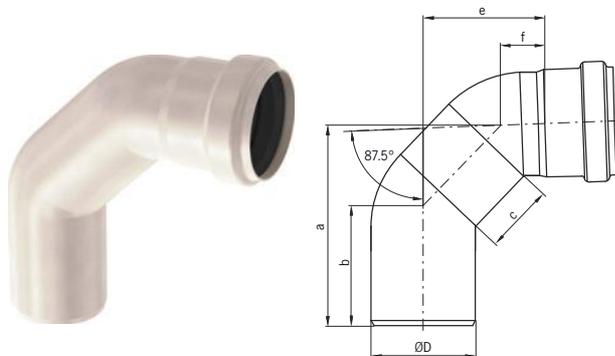
| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|------------|--------|----------------|-----------------------|-----------------------|
| | | a [mm] | b [mm] | | | |
| EPDM | 50 | 57 | 16 | 0.2 | 98716 | 98766 |
| | 75 | 71 | 21 | 0.3 | 98718 | 98768 |
| | 110 | 85 | 27 | 0.5 | 98720 | 98770 |
| | 125 | 98 | 28 | 0.6 | 419740 | 419742 |
| | 160 | 110 | 40 | 1.2 | 98722 | 98772 |
| | 200 | 137 | 45 | 2.3 | 419403 | 419405 |
| Viton | 250 | 153 | 58 | 2.9 | 417095 | 417096 |
| | 50 | 57 | 16 | 0.2 | 98717 | 98767 |
| | 75 | 71 | 21 | 0.3 | 98719 | 98769 |
| | 110 | 85 | 27 | 0.5 | 98721 | 98771 |
| | 125 | 98 | 28 | 0.6 | 419741 | 419743 |
| | 160 | 110 | 40 | 1.2 | 98723 | 98773 |
| | 200 | 137 | 45 | 2.3 | 419404 | 419406 |
| | 250 | 153 | 58 | 2.9 | 417097 | 417098 |

ACO pipe - bend 15°



| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 54 | 12 | 0.1 | 98724 | 98774 |
| | 75 | 66 | 16 | 0.3 | 98726 | 98776 |
| | 110 | 78 | 15 | 0.4 | 98728 | 98778 |
| | 125 | 84 | 19 | 0.5 | 419744 | 419746 |
| | 160 | 99 | 29 | 1.0 | 98730 | 98780 |
| | 200 | 123 | 31 | 1.9 | 419399 | 419401 |
| Viton | 250 | 136 | 40 | 2.5 | 417099 | 417100 |
| | 50 | 54 | 12 | 0.1 | 98725 | 98775 |
| | 75 | 66 | 16 | 0.3 | 98727 | 98777 |
| | 110 | 78 | 15 | 0.4 | 98729 | 98779 |
| | 125 | 84 | 19 | 0.5 | 419745 | 419747 |
| | 160 | 99 | 29 | 1.0 | 98731 | 98781 |
| | 200 | 123 | 31 | 1.9 | 419400 | 419402 |
| 250 | 136 | 40 | 2.5 | 417101 | 417102 | |

ACO pipe - long bend 87.5°



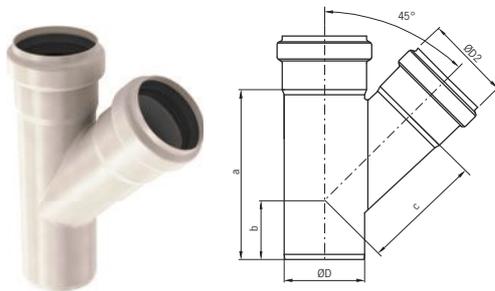
| Seal material | Outlet diameter ØD [mm] | Dimensions | | | | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|--------|--------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | c [mm] | e [mm] | f [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 123 | 71 | 50 | 75 | 25 | 0.3 | 419146 | 419000 |
| | 75 | 146 | 87 | 50 | 88 | 32 | 0.5 | 419148 | 419002 |
| | 110 | 175 | 103 | 250 | 103 | 39 | 1.4 | 419150 | 419004 |
| | 160 | 222 | 126 | 250 | 183 | 92 | 2.2 | 419152 | 419144 |
| Viton | 50 | 123 | 71 | 50 | 75 | 25 | 0.3 | 419147 | 419001 |
| | 75 | 146 | 87 | 50 | 88 | 32 | 0.5 | 419149 | 419003 |
| | 110 | 175 | 103 | 250 | 103 | 39 | 1.4 | 419151 | 419005 |
| | 160 | 222 | 126 | 250 | 183 | 92 | 2.2 | 419153 | 419145 |

Branches

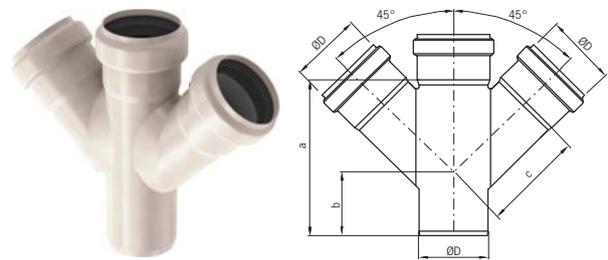
Product information

- Branches are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully comply to EN 1124
- EPDM and Viton® seals available
- Fully pickled and passivated

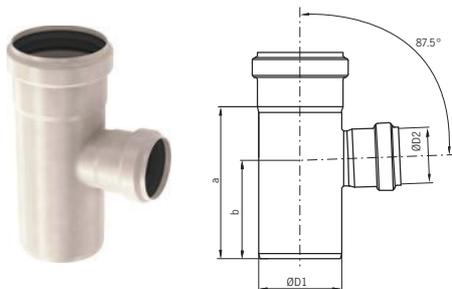
ACO pipe - single branch



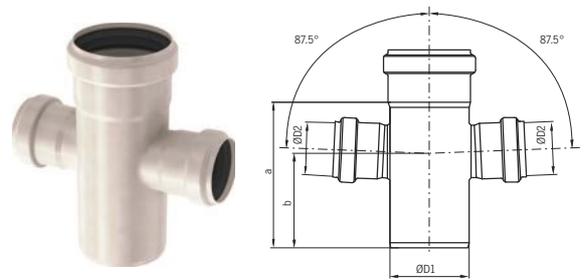
ACO pipe - double branch



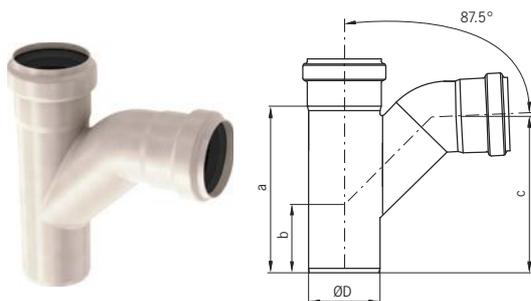
ACO pipe - single branch reduction



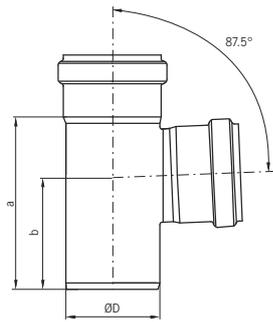
ACO pipe - double branch reduction



ACO pipe - swept single branch

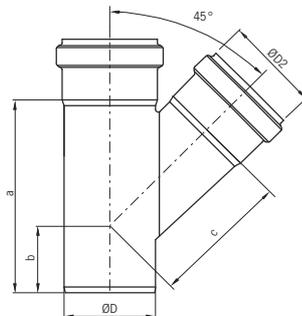


ACO pipe - single branch 87.5°



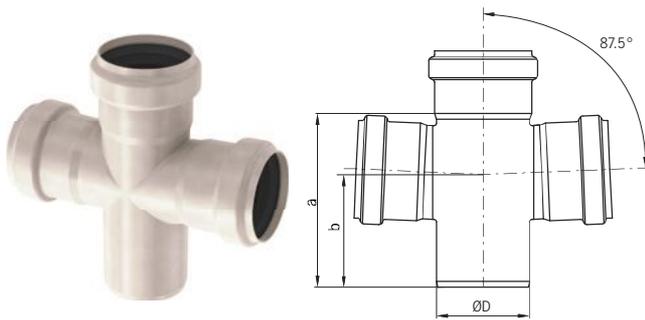
| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 106 | 71 | 0.3 | 98732 | 98782 |
| | 75 | 139 | 90 | 0.5 | 98734 | 98784 |
| | 110 | 183 | 117 | 0.8 | 98736 | 98786 |
| | 125 | 220 | 135 | 0.9 | 419748 | 419750 |
| | 160 | 288 | 184 | 2.3 | 98738 | 98788 |
| | 200 | 333 | 206 | 4.5 | 419419 | 419421 |
| Viton | 250 | 363 | 215 | 5.5 | 417103 | 417104 |
| | 50 | 106 | 71 | 0.3 | 98733 | 98783 |
| | 75 | 139 | 90 | 0.5 | 98735 | 98785 |
| | 110 | 183 | 117 | 0.8 | 98737 | 98787 |
| | 125 | 220 | 135 | 0.9 | 419749 | 419751 |
| | 160 | 288 | 184 | 2.3 | 98739 | 98789 |
| | 200 | 333 | 206 | 4.5 | 419420 | 419422 |
| | 250 | 363 | 215 | 5.5 | 417105 | 417106 |

ACO pipe - single branch 45°



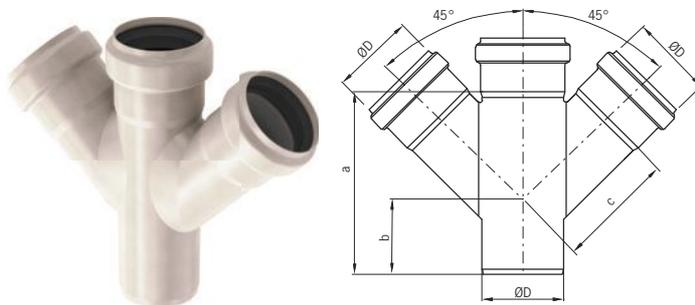
| Seal material | Outlet diameter ØD [mm] | Dimensions | | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | c [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 128 | 57 | 76 | 0.3 | 98748 | 98798 |
| | 75 | 179 | 74 | 110 | 0.5 | 98800 | 98850 |
| | 110 | 233 | 88 | 149 | 1.0 | 98802 | 98852 |
| | 125 | 273 | 103 | 170 | 1.1 | 419760 | 419762 |
| | 160 | 332 | 119 | 222 | 2.6 | 98804 | 98854 |
| | 200 | 415 | 151 | 274 | 5.7 | 419427 | 419429 |
| Viton | 250 | 513 | 172 | 336 | 9.2 | 417107 | 417108 |
| | 50 | 128 | 57 | 76 | 0.3 | 98749 | 98799 |
| | 75 | 179 | 74 | 110 | 0.5 | 98801 | 98851 |
| | 110 | 233 | 88 | 149 | 1.0 | 98803 | 98853 |
| | 125 | 273 | 103 | 170 | 1.1 | 419761 | 419763 |
| | 160 | 332 | 119 | 222 | 2.6 | 98805 | 98855 |
| | 200 | 415 | 151 | 274 | 5.7 | 419428 | 419430 |
| | 250 | 513 | 172 | 336 | 9.2 | 417109 | 417110 |

ACO pipe - double branch 87.5°



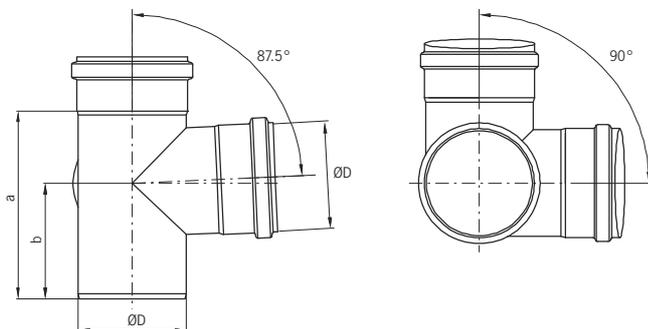
| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number | Item number |
|---------------|----------------------------|------------|--------|----------------|--------------|--------------|
| | | a [mm] | b [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 106 | 71 | 0.3 | 98740 | 98790 |
| | 75 | 139 | 90 | 0.6 | 98742 | 98792 |
| | 110 | 183 | 117 | 0.9 | 98744 | 98794 |
| | 160 | 288 | 184 | 2.7 | 98746 | 98796 |
| Viton | 50 | 106 | 71 | 0.3 | 98741 | 98791 |
| | 75 | 139 | 90 | 0.6 | 98743 | 98793 |
| | 110 | 183 | 117 | 0.9 | 98745 | 98795 |
| | 160 | 288 | 184 | 2.7 | 98747 | 98797 |

ACO pipe - double branch 45°



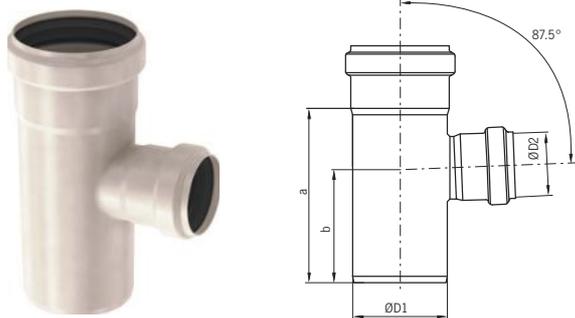
| Seal material | Outlet diameter ØD [mm] | Dimensions | | | Weight [kg] | Item number | Item number |
|---------------|----------------------------|------------|--------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | c [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 128 | 57 | 76 | 0.4 | 98806 | 98856 |
| | 75 | 179 | 74 | 110 | 0.7 | 98808 | 98858 |
| | 110 | 233 | 88 | 149 | 1.2 | 98810 | 98860 |
| | 160 | 332 | 184 | 222 | 3.5 | 98812 | 98862 |
| | 250 | 509 | 172 | 336 | 11 | 417119 | 417120 |
| Viton | 50 | 128 | 57 | 76 | 0.4 | 98807 | 98857 |
| | 75 | 179 | 74 | 110 | 0.7 | 98809 | 98859 |
| | 110 | 233 | 88 | 149 | 1.2 | 98811 | 98861 |
| | 160 | 332 | 184 | 222 | 3.5 | 98813 | 98863 |
| | 250 | 509 | 172 | 336 | 11 | 417121 | 417122 |

ACO pipe - corner branch 87.5°



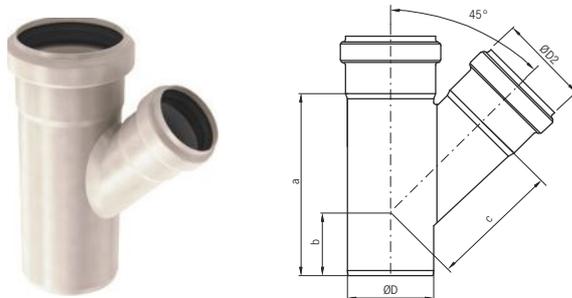
| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 106 | 71 | 0.4 | 419162 | 419210 |
| | 75 | 139 | 90 | 0.7 | 419164 | 419212 |
| | 110 | 183 | 117 | 1.1 | 419166 | 419214 |
| | 125 | 220 | 135 | 1.6 | 417020 | 417021 |
| | 160 | 288 | 184 | 2.9 | 419168 | 419216 |
| Viton | 50 | 106 | 71 | 0.4 | 419163 | 419211 |
| | 75 | 139 | 90 | 0.7 | 419165 | 419213 |
| | 110 | 183 | 117 | 1.1 | 419167 | 419215 |
| | 125 | 220 | 135 | 1.6 | 417054 | 417055 |
| | 160 | 288 | 184 | 2.9 | 419169 | 419217 |

ACO pipe - single branch reduction 87.5°



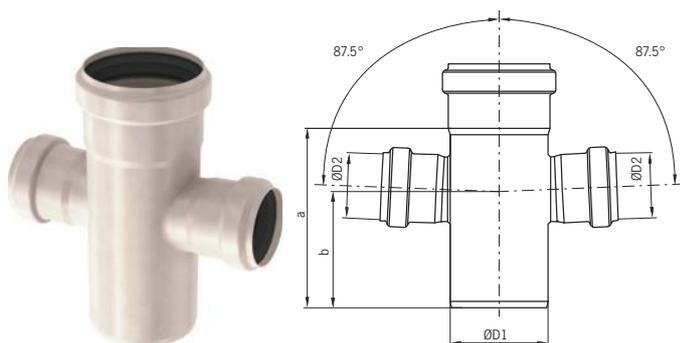
| Seal material | Outlet diameter | | Dimensions | | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|-----------------|----------|------------|--------|-------------|--------------------|--------------------|
| | ØD1 [mm] | ØD2 [mm] | a [mm] | b [mm] | | | |
| EPDM | 75 | 50 | 139 | 90 | 0.3 | 98928 | 98930 |
| | 110 | 50 | 183 | 117 | 0.5 | 98932 | 98934 |
| | 110 | 75 | 183 | 117 | 0.8 | 98936 | 98938 |
| | 125 | 75 | 187 | 110 | 0.9 | 419752 | 419754 |
| | 125 | 110 | 205 | 127 | 0.9 | 419756 | 419758 |
| | 160 | 110 | 288 | 184 | 2.3 | 400691 | 400693 |
| | 200 | 160 | 293 | 186 | 3.7 | 419415 | 419417 |
| Viton | 250 | 200 | 349 | 226 | 5.8 | 417111 | 417112 |
| | 75 | 50 | 139 | 90 | 0.3 | 98929 | 98931 |
| | 110 | 50 | 183 | 117 | 0.5 | 98933 | 98935 |
| | 110 | 75 | 183 | 117 | 0.8 | 98937 | 98939 |
| | 125 | 75 | 187 | 110 | 0.9 | 419753 | 419755 |
| | 125 | 110 | 205 | 127 | 0.9 | 419757 | 419759 |
| | 160 | 110 | 288 | 184 | 2.3 | 400692 | 400694 |
| | 200 | 160 | 293 | 186 | 3.7 | 419416 | 419418 |
| | 250 | 200 | 349 | 226 | 5.8 | 417113 | 417114 |

ACO pipe - single branch reduction 45°



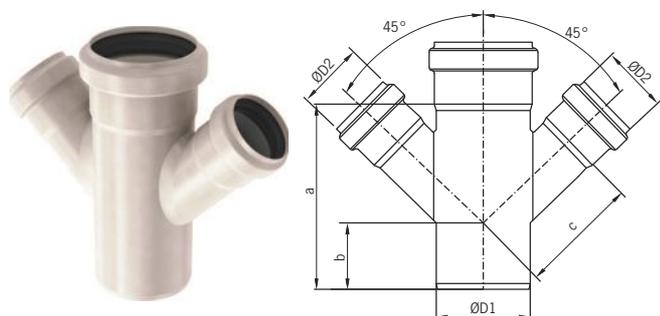
| Seal material | Outlet diameter | | Dimensions | | | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|-----------------|----------|------------|--------|--------|-------------|--------------------|--------------------|
| | ØD1 [mm] | ØD2 [mm] | a [mm] | b [mm] | c [mm] | | | |
| EPDM | 75 | 50 | 144 | 56 | 94 | 0.3 | 400661 | 400663 |
| | 110 | 50 | 147 | 42 | 119 | 0.5 | 400665 | 400667 |
| | 110 | 75 | 182 | 60 | 135 | 1.0 | 400669 | 400671 |
| | 125 | 75 | 200 | 65 | 141 | 1.1 | 419764 | 419766 |
| | 125 | 110 | 250 | 90 | 160 | 1.1 | 419768 | 419770 |
| | 160 | 110 | 332 | 119 | 191 | 2.6 | 400699 | 400701 |
| | 200 | 160 | 359 | 123 | 250 | 4.7 | 419423 | 419425 |
| | 250 | 200 | 429 | 175 | 307 | 7.6 | 417115 | 417116 |
| Viton | 75 | 50 | 144 | 56 | 94 | 0.3 | 400662 | 400664 |
| | 110 | 50 | 147 | 42 | 119 | 0.5 | 400666 | 400668 |
| | 110 | 75 | 182 | 60 | 135 | 1.0 | 400670 | 400672 |
| | 125 | 75 | 200 | 65 | 141 | 1.1 | 419765 | 419767 |
| | 125 | 110 | 250 | 90 | 160 | 1.1 | 419769 | 419771 |
| | 160 | 110 | 332 | 119 | 191 | 2.6 | 400700 | 400702 |
| | 200 | 160 | 359 | 123 | 250 | 4.7 | 419424 | 419426 |
| | 250 | 200 | 429 | 175 | 307 | 7.6 | 417117 | 417118 |

ACO pipe - double branch reduction 87.5°



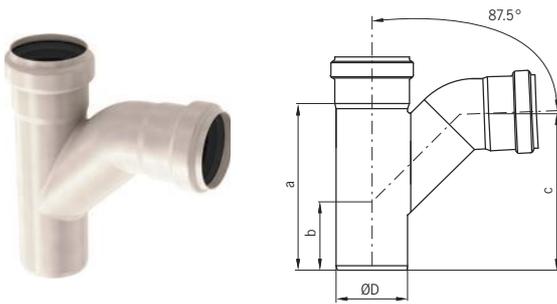
| Seal material | Outlet diameter | | Dimensions | | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|-----------------|----------|------------|--------|-------------|--------------------|--------------------|
| | ØD1 [mm] | ØD2 [mm] | a [mm] | b [mm] | | | |
| EPDM | 75 | 50 | 139 | 90 | 0.3 | 98940 | 98942 |
| | 110 | 50 | 183 | 117 | 0.6 | 98944 | 98946 |
| | 110 | 75 | 183 | 117 | 0.9 | 98900 | 98902 |
| | 160 | 110 | 288 | 184 | 2.7 | 400695 | 400697 |
| Viton | 75 | 50 | 139 | 90 | 0.3 | 98941 | 98943 |
| | 110 | 50 | 183 | 117 | 0.6 | 98945 | 98947 |
| | 110 | 75 | 183 | 117 | 0.9 | 98901 | 98903 |
| | 160 | 110 | 288 | 184 | 2.7 | 400696 | 400698 |

ACO pipe - double branch reduction 45°



| Seal material | Outlet diameter | | Dimensions | | | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|-----------------|----------|------------|--------|--------|-------------|--------------------|--------------------|
| | ØD1 [mm] | ØD2 [mm] | a [mm] | b [mm] | c [mm] | | | |
| EPDM | 75 | 50 | 144 | 56 | 94 | 0.4 | 400673 | 400675 |
| | 110 | 50 | 147 | 42 | 119 | 0.7 | 400677 | 400679 |
| | 110 | 75 | 182 | 60 | 135 | 1.2 | 400681 | 400683 |
| | 160 | 110 | 332 | 119 | 190 | 3.5 | 400703 | 400705 |
| | 250 | 200 | 429 | 150 | 307 | 10.1 | 417123 | 417124 |
| Viton | 75 | 50 | 144 | 56 | 94 | 0.4 | 400674 | 400676 |
| | 110 | 50 | 147 | 42 | 119 | 0.7 | 400678 | 400680 |
| | 110 | 75 | 182 | 60 | 135 | 1.2 | 400682 | 400684 |
| | 160 | 110 | 332 | 119 | 190 | 3.5 | 400704 | 400706 |
| | 250 | 200 | 429 | 150 | 307 | 10.1 | 417125 | 417126 |

ACO pipe - swept single branch 87.5°



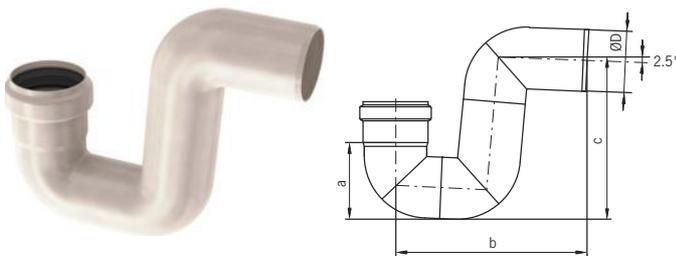
| Seal material | Outlet diameter ØD [mm] | Dimensions | | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|--------|----------------|--------------|--------------|
| | | a [mm] | b [mm] | c [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 128 | 57 | 117 | 0.3 | 98814 | 98864 |
| | 75 | 179 | 74 | 157 | 0.6 | 98816 | 98866 |
| | 110 | 233 | 88 | 209 | 1.1 | 98818 | 98868 |
| | 160 | 332 | 184 | 302 | 2.8 | 98820 | 98870 |
| Viton | 50 | 128 | 57 | 117 | 0.3 | 98815 | 98865 |
| | 75 | 179 | 74 | 157 | 0.6 | 98817 | 98867 |
| | 110 | 233 | 88 | 209 | 1.1 | 98819 | 98869 |
| | 160 | 332 | 184 | 302 | 2.8 | 98821 | 98871 |

Accessories

Product information

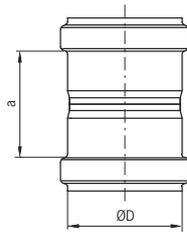
- Accessories are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully comply to EN 1124
- EPDM and Viton® seals available
- Fully pickled and passivated

"P" trap



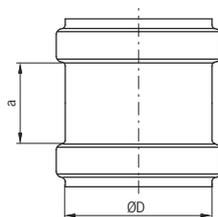
| Seal material | Outlet diameter ØD [mm] | Dimensions | | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|--------|----------------|--------------|--------------|
| | | a [mm] | b [mm] | c [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 68 | 187 | 149 | 0.5 | 98822 | 98872 |
| | 75 | 94 | 232 | 193 | 0.7 | 98824 | 98874 |
| | 110 | 132 | 300 | 254 | 1.3 | 98826 | 98876 |
| | 160 | 190 | 403 | 347 | 3.3 | 98828 | 98878 |
| Viton | 50 | 68 | 187 | 149 | 0.5 | 98823 | 98873 |
| | 75 | 94 | 232 | 193 | 0.7 | 98825 | 98875 |
| | 110 | 132 | 300 | 254 | 1.3 | 98827 | 98877 |
| | 160 | 190 | 403 | 347 | 3.3 | 98829 | 98879 |

Straight coupling



| Seal material | Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|----------------------|----------------|-----------------------|-----------------------|
| EPDM | 50 | 54 | 0.1 | 98920 | 98970 |
| | 75 | 75 | 0.2 | 98922 | 98972 |
| | 110 | 84 | 0.4 | 98924 | 98974 |
| | 125 | 140 | 0.4 | 419813 | 419815 |
| | 160 | 110 | 0.8 | 98926 | 98976 |
| | 200 | 136 | 1.8 | 419431 | 419433 |
| Viton | 50 | 54 | 0.1 | 98921 | 98971 |
| | 75 | 75 | 0.2 | 98923 | 98973 |
| | 110 | 84 | 0.4 | 98925 | 98975 |
| | 125 | 140 | 0.4 | 419814 | 419816 |
| | 160 | 110 | 0.8 | 98927 | 98977 |
| | 200 | 136 | 1.8 | 419432 | 419434 |
| | 250 | 181 | 3.1 | 417158 | 417159 |
| | | | | 417160 | 417161 |

Repair coupling



| Seal material | Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|---------------|----------------------------|----------------------|----------------|-----------------------|-----------------------|
| EPDM | 50 | 44 | 0.1 | 98830 | 98880 |
| | 75 | 46 | 0.2 | 98832 | 98882 |
| | 110 | 52 | 0.3 | 98834 | 98884 |
| | 125 | 70 | 0.3 | 419772 | 419774 |
| | 160 | 76 | 0.7 | 98836 | 98886 |
| | 200 | 100 | 1.5 | 419435 | 419437 |
| Viton | 50 | 44 | 0.1 | 98831 | 98881 |
| | 75 | 46 | 0.2 | 98833 | 98883 |
| | 110 | 52 | 0.3 | 98835 | 98885 |
| | 125 | 70 | 0.3 | 419773 | 419775 |
| | 160 | 76 | 0.7 | 98837 | 98887 |
| | 200 | 100 | 1.5 | 419436 | 419438 |
| | 250 | 182 | 2.4 | 417138 | 417139 |
| | | | | 417140 | 417141 |

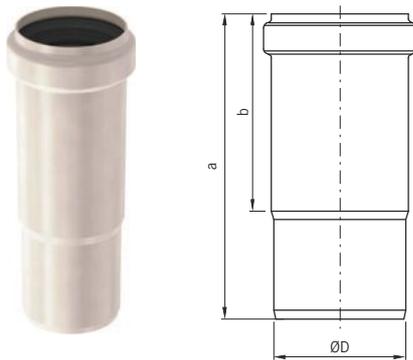
Note:

Repair couplings are used to aid a convenient repair to a damaged in-situ pipe. Unlike the standard straight coupling, there is no central registration to limit the insertion depth of the pipe. The repair coupling slides completely over a pipe joint and simply re-positioned to bridge the required pipe joint.

Installation tip:

Mark the final position of the repair coupling on the installed pipe system to ensure the coupling seals are positioned symmetrically about the pipe joint.

Expansion socket



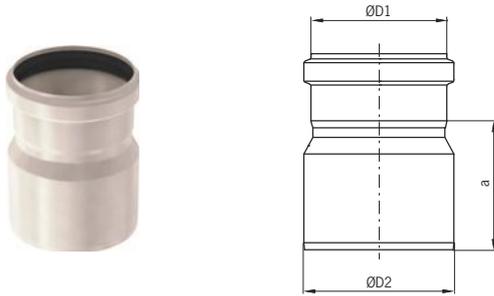
| Seal material | Outlet diameter ØD [mm] | Dimensions | | Weight [kg] | Item number | |
|---------------|----------------------------|------------|--------|----------------|---------------|---------------|
| | | a [mm] | b [mm] | | 1.4301 | 1.4404 |
| EPDM | 50 | 159 | 102 | 0.2 | 98664 | 98666 |
| | 75 | 175 | 113 | 0.3 | 98668 | 98670 |
| | 110 | 200 | 121 | 0.5 | 98672 | 98674 |
| | 125 | 250 | 165 | 0.6 | 419776 | 419778 |
| | 160 | 292 | 170 | 1.4 | 98676 | 98678 |
| | 250 | 400 | 190 | 3.8 | 417142 | 417143 |
| Viton | 50 | 159 | 102 | 0.2 | 98665 | 98667 |
| | 75 | 175 | 113 | 0.3 | 98669 | 98671 |
| | 110 | 200 | 121 | 0.5 | 98673 | 98675 |
| | 125 | 250 | 165 | 0.6 | 419777 | 419779 |
| | 160 | 292 | 170 | 1.4 | 98677 | 98679 |
| | 250 | 400 | 190 | 3.8 | 417144 | 417145 |

Eccentric increaser coupling



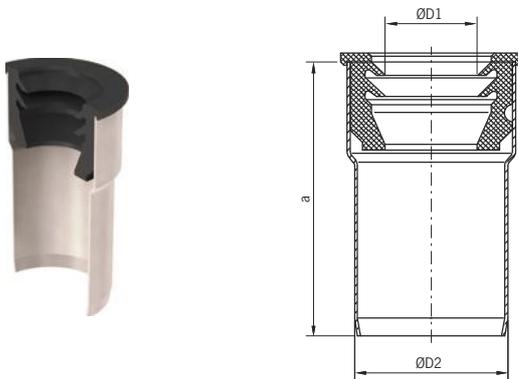
| Seal material | Outlet diameter | | Dimensions | | Weight [kg] | Item number |
|---------------|-----------------|----------|------------|--------|----------------|---------------|
| | ØD1 [mm] | ØD2 [mm] | a [mm] | b [mm] | | |
| EPDM | 50 | 75 | 75 | 7 | 0.3 | 98892 |
| | 50 | 110 | 110 | 25 | 0.4 | 98978 |
| | 75 | 110 | 110 | 15 | 0.5 | 98894 |
| | 110 | 160 | 160 | 22 | 1.1 | 98896 |
| | 200 | 250 | 180 | 15 | 2.4 | 417135 |
| Viton | 50 | 75 | 75 | 7 | 0.3 | 98893 |
| | 50 | 110 | 110 | 25 | 0.4 | 98979 |
| | 75 | 110 | 110 | 15 | 0.5 | 98895 |
| | 110 | 160 | 160 | 22 | 1.1 | 98897 |
| | 200 | 250 | 180 | 15 | 2.4 | 417136 |

Concentric increaser coupling



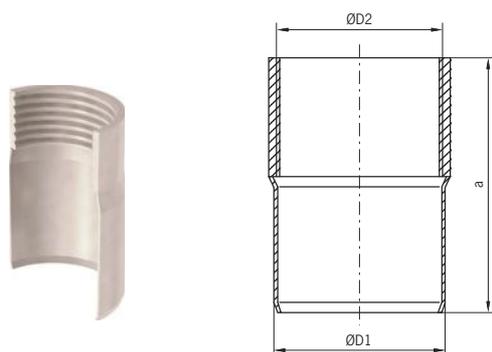
| Seal material | Outlet diameter | | Dimensions | | Weight [kg] | Item number |
|---------------|-----------------|----------|------------|--------|-------------|---------------|
| | ØD1 [mm] | ØD2 [mm] | a [mm] | b [mm] | | |
| EPDM | 110 | 125 | 125 | 0 | 0.6 | 419780 |
| | 125 | 160 | 160 | 0 | 1.2 | 419811 |
| | 160 | 200 | 200 | 0 | 1.8 | 419441 |
| | 200 | 250 | 180 | 0 | 2.4 | 417133 |
| Viton | 110 | 125 | 125 | 0 | 0.6 | 419781 |
| | 125 | 160 | 160 | 0 | 1.2 | 419812 |
| | 160 | 200 | 200 | 0 | 1.8 | 419442 |
| | 200 | 250 | 180 | 0 | 2.4 | 417134 |

Increaser connector



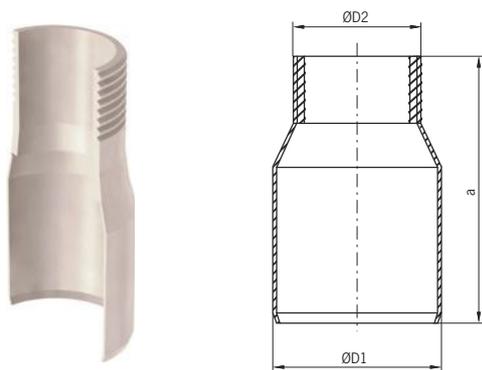
| Seal material | Outlet diameter | | Dimensions a [mm] | Weight [kg] | Item number |
|---------------|-----------------|----------|-------------------|-------------|---------------|
| | ØD1 [mm] | ØD2 [mm] | | | |
| NBR | 32 | 50 | 90 | 0.2 | 419373 |
| | 40 | 50 | 90 | 0.2 | 419374 |

Connector with internal screw thread and spigot



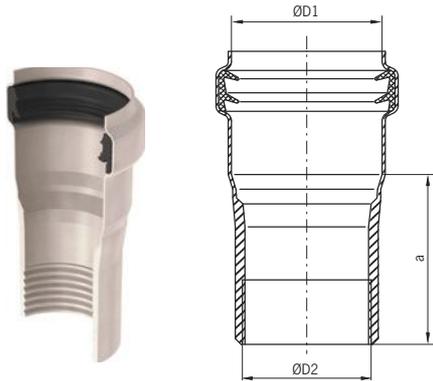
| Outlet diameter | | Dimensions a [mm] | Weight [kg] | Item number |
|-----------------|----------|----------------------|----------------|--------------|
| ØD1 [mm] | ØD2 [mm] | | | |
| 50 | Rp 1¼" | 72 | 0.2 | 98956 |
| 50 | Rp 1½" | 75 | 0.3 | 98957 |
| 50 | Rp 2" | 80 | 0.3 | 98958 |

Connector with external screw thread and spigot



| Outlet diameter | | Dimensions a [mm] | Weight [kg] | Item number |
|-----------------|----------|----------------------|----------------|---------------|
| ØD1 [mm] | ØD2 [mm] | | | |
| 50 | Rp 1¼" | 100 | 0.2 | 419330 |
| 50 | Rp 1½" | 100 | 0.3 | 419331 |
| 50 | Rp 2" | 100 | 0.3 | 419332 |

Connector with socket and internal screw thread



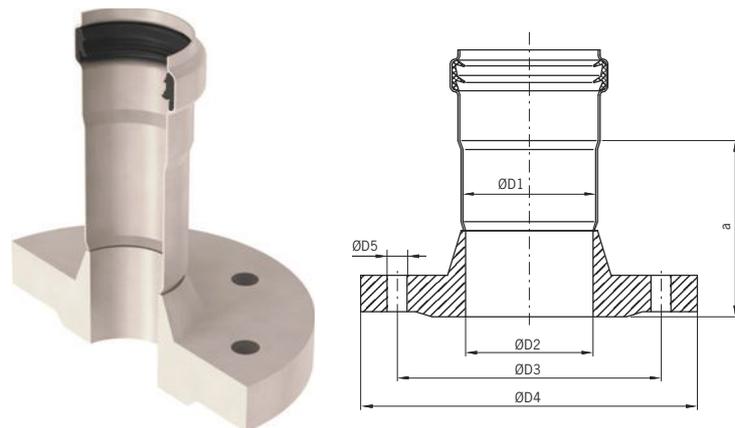
| Seal material | Outlet diameter | | Dimensions a [mm] | Weight [kg] | Item number |
|---------------|-----------------|----------|----------------------|----------------|---------------|
| | ØD1 [mm] | ØD2 [mm] | | | |
| EPDM | 50 | R 1¼" | 58 | 0.2 | 419333 |
| | 50 | R 1½" | 58 | 0.3 | 419335 |
| | 50 | R 2" | 58 | 0.3 | 419337 |
| Viton | 50 | R 1¼" | 58 | 0.2 | 419334 |
| | 50 | R 1½" | 58 | 0.3 | 419336 |
| | 50 | R 2" | 58 | 0.3 | 419338 |

Connector with socket and external screw thread



| Seal material | Outlet diameter | | Dimensions a [mm] | Weight [kg] | Item number |
|---------------|-----------------|----------|----------------------|----------------|---------------|
| | ØD1 [mm] | ØD2 [mm] | | | |
| EPDM | 50 | R 1¼" | 58 | 0.2 | 419250 |
| | 50 | R 1½" | 58 | 0.3 | 419252 |
| | 50 | R 2" | 58 | 0.3 | 419254 |
| Viton | 50 | R 1¼" | 58 | 0.2 | 419251 |
| | 50 | R 1½" | 58 | 0.3 | 419253 |
| | 50 | R 2" | 58 | 0.3 | 419255 |

Connector with socket and flange



| Seal material | Outlet diameter | | | | n x ØD5 [mm] | Dimensions a [mm] | Weight [kg] | Item number |
|---------------|-----------------|----------|----------|----------|-----------------|----------------------|----------------|-------------------------|
| | ØD1 [mm] | ØD2 [mm] | ØD3 [mm] | ØD4 [mm] | | | | |
| EPDM | 50 | DN 40 | 110 | 150 | 4 × 18 | 100 | 2.3 | 1.4404 419256 |
| | 50 | DN 50 | 125 | 165 | 4 × 18 | 100 | 2.7 | 419258 |
| | 75 | DN 65 | 145 | 185 | 4 × 18 | 100 | 3.4 | 419260 |
| | 110 | DN 100 | 180 | 220 | 8 × 18 | 100 | 4.9 | 419262 |
| | 200 | DN 200 | 295 | 340 | 12 × 22 | 102 | 12.0 | 419514 |
| Viton | 50 | DN 40 | 110 | 150 | 4 × 18 | 100 | 2.3 | 419257 |
| | 50 | DN 50 | 125 | 165 | 4 × 18 | 100 | 2.7 | 419259 |
| | 75 | DN 65 | 145 | 185 | 4 × 18 | 100 | 3.4 | 419261 |
| | 110 | DN 100 | 180 | 220 | 8 × 18 | 100 | 4.9 | 419263 |
| | 200 | DN 200 | 295 | 340 | 12 × 22 | 102 | 12.0 | 419515 |

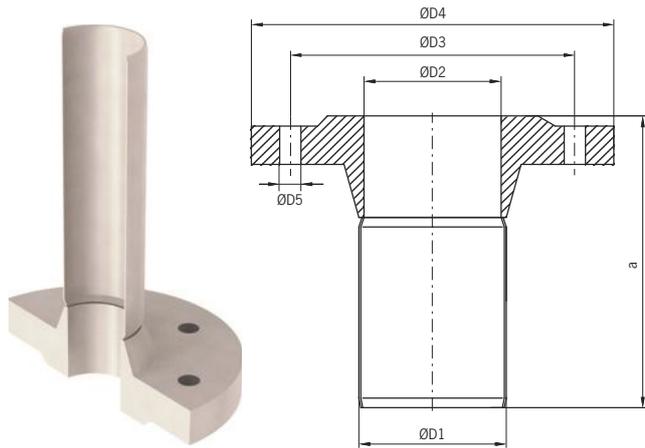
Note:

n – number of holes for screws in the flange.

Flange PN 16 DIN 2633.

Flange PN 6 and PN 10 available on request.

Connector with flange and spigot



| ØD1 [mm] | Outlet diameter | | | n x ØD5 [mm] | Dimensions a [mm] | Weight [kg] | Item number |
|----------|-----------------|----------|----------|--------------|-------------------|-------------|---------------|
| | ØD2 [mm] | ØD3 [mm] | ØD4 [mm] | | | | |
| 50 | DN 40 | 110 | 150 | 4 × 18 | 192 | 2.3 | 419264 |
| 50 | DN 50 | 125 | 165 | 4 × 18 | 192 | 2.7 | 419265 |
| 75 | DN 65 | 145 | 185 | 4 × 18 | 245 | 3.4 | 419266 |
| 110 | DN 100 | 180 | 220 | 8 × 18 | 259 | 4.9 | 419267 |
| 160 | DN 150 | 240 | 285 | 8 × 22 | 200 | 8.5 | 419540 |
| 200 | DN 200 | 295 | 240 | 12 × 22 | 240 | 12.3 | 419541 |

Note:

n – number of holes for screws in the flange.

Flange PN 16 DIN 2633.

Flange PN 6 and PN 10 available on request.

Connector cast iron spigot → ACO pipe socket

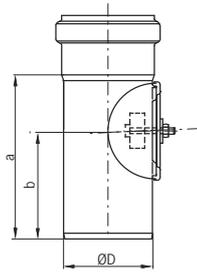


| Outlet diameter ØD [mm] | Dimensions L [mm] | Weight [kg] | Item number |
|-------------------------|-------------------|-------------|--------------|
| 75 | 121 | 0.4 | 98904 |
| 110 | 137 | 0.6 | 98906 |

Note:

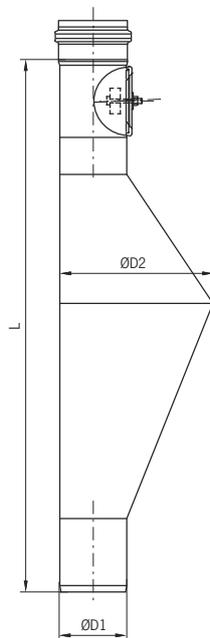
Set of reduction sealings cast Iron spigot → ACO pipe socket and ACO pipe spigot → cast iron socket

Access unit



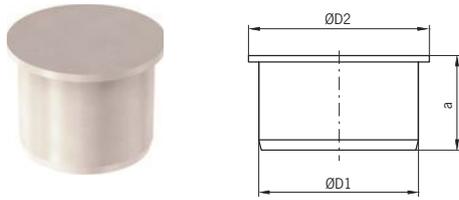
| Seal material | Outlet diameter | | Dimensions | | Weight [kg] | Item number | |
|---------------|-----------------|--|------------|--------|-------------|---------------|---------------|
| | ØD [mm] | | a [mm] | b [mm] | | 1.4301 | 1.4404 |
| EPDM | 75 | | 139 | 90 | 0.5 | 98913 | 98963 |
| | 110 | | 183 | 117 | 0.8 | 98915 | 98965 |
| | 125 | | 210 | 135 | 0.9 | 419783 | 419785 |
| | 160 | | 288 | 184 | 2.3 | 98917 | 98967 |
| | 200 | | 293 | 186 | 3.7 | 419676 | 419678 |
| | 250 | | 290 | 184 | 3.8 | 417127 | 417128 |
| Viton | 75 | | 139 | 90 | 0.5 | 98914 | 98964 |
| | 110 | | 183 | 117 | 0.8 | 98916 | 98966 |
| | 125 | | 210 | 135 | 0.9 | 419784 | 419786 |
| | 160 | | 288 | 184 | 2.3 | 98918 | 98968 |
| | 200 | | 293 | 186 | 3.7 | 419677 | 419679 |
| | 250 | | 290 | 184 | 3.8 | 417129 | 417130 |

Rat-stop



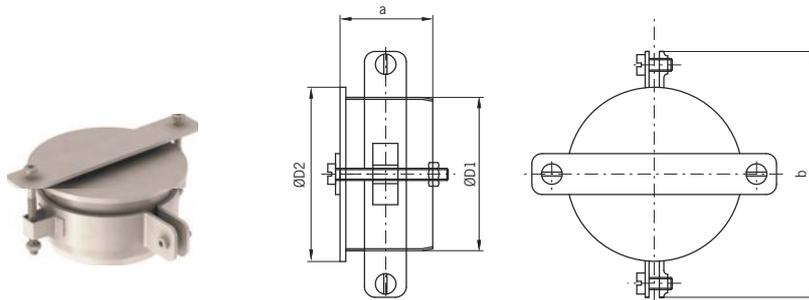
| Seal material | Outlet diameter | | Dimensions L [mm] | Weight [kg] | Item number | |
|---------------|-----------------|----------|-------------------|-------------|---------------|---------------|
| | ØD1 [mm] | ØD2 [mm] | | | 1.4301 | 1.4404 |
| EPDM | 110 | 250 | 864 | 3.8 | 419268 | 419270 |
| Viton | 110 | 250 | 864 | 3.8 | 419269 | 419271 |

Socket plug



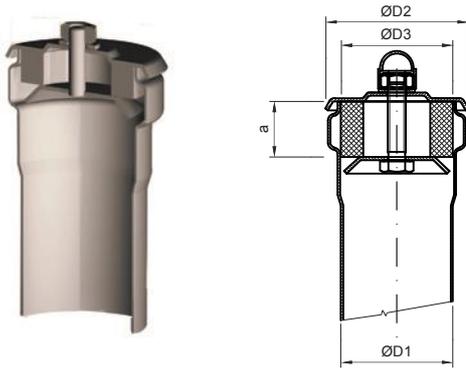
| Outlet diameter | | Dimensions a [mm] | Weight [kg] | Item number 1.4404 |
|-----------------|----------|----------------------|----------------|-----------------------|
| ØD1 [mm] | ØD2 [mm] | | | |
| 50 | 58 | 45 | 0.1 | 98888 |
| 75 | 85 | 45 | 0.3 | 98889 |
| 110 | 120 | 45 | 0.5 | 98890 |
| 125 | 135 | 50 | 0.6 | 419782 |
| 160 | 170 | 50 | 0.5 | 98891 |
| 200 | 210 | 50 | 0.7 | 98994 |
| 250 | 260 | 83 | 1.0 | 417131 |

Socket plug with clamp



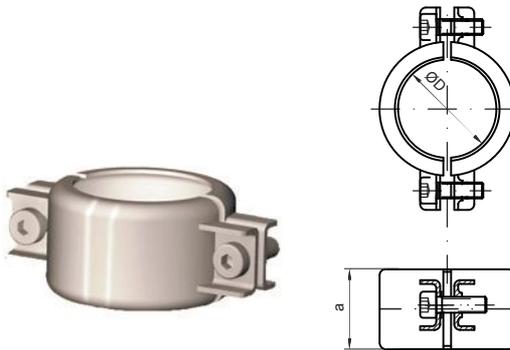
| Outlet diameter | | Dimensions | | Weight [kg] | Item number 1.4404 |
|-----------------|----------|------------|--------|----------------|-----------------------|
| ØD1 [mm] | ØD2 [mm] | a [mm] | b [mm] | | |
| 50 | 58 | 45 | 88 | 0.4 | 419138 |
| 75 | 85 | 45 | 120 | 0.6 | 419139 |
| 110 | 120 | 45 | 167 | 0.8 | 419140 |
| 160 | 170 | 50 | 214 | 1.1 | 419141 |
| 250 | 260 | 83 | 302 | 1.3 | 417132 |

Drainplugs with screwed plug



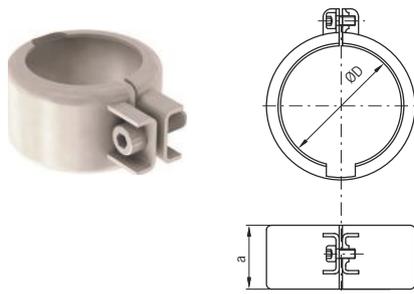
| ØD1 [mm] | Outlet diameter | | Dimensions a [mm] | Weight [kg] | Item number | |
|----------|-----------------|----------|----------------------|----------------|---------------|---------------|
| | ØD2 [mm] | ØD3 [mm] | | | 1.4301 | 1.4404 |
| 50 | 64 | 50 | 12 | 0,08 | 419942 | 419948 |
| 75 | 92 | 75 | 12 | 0,5 | 419943 | 419949 |
| 110 | 126 | 105 | 15 | 0,5 | 419944 | 419950 |
| 125 | 160 | 124 | 12 | 0,9 | 419945 | 419951 |
| 160 | 186 | 166 | 20 | 1,2 | 419946 | 419952 |

Socket clamp - two parts



| Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number 1.4301 | Item number 1.4404 |
|----------------------------|----------------------|----------------|-----------------------|-----------------------|
| 50 | 40 | 0,14 | 417024 | 417025 |
| 75 | 40 | 0,25 | 417026 | 417027 |
| 110 | 43 | 0,34 | 417028 | 417029 |
| 125 | 45 | 0,38 | 417016 | 417017 |
| 160 | 45 | 0,48 | 417030 | 417031 |
| 200 | 45 | 0,51 | - | 419983 |
| 250 | 45 | 0,71 | - | 417137 |

Socket clamp

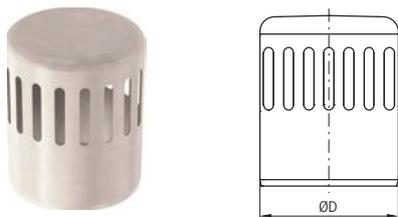


| Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number |
|----------------------------|----------------------|----------------|---------------|
| | | | 1.4404 |
| 50 | 40 | 0.1 | 419134 |
| 75 | 40 | 0.2 | 419135 |
| 110 | 43 | 0.3 | 419136 |
| 160 | 43 | 0.4 | 419137 |

Socket clamp special

| Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number | Item number |
|----------------------------|----------------------|----------------|---------------|---------------|
| | | | 1.4301 | 1.4404 |
| 50 | 40 | 0.11 | 417066 | 417067 |
| 75 | 43 | 0.16 | 417068 | 417069 |

Vent cowl



| Outlet diameter ØD [mm] | Weight [kg] | Item number |
|----------------------------|----------------|--------------|
| | | 1.4404 |
| 110 | 0,4 | 98962 |

Reduction sealing cast Iron spigot → ACO pipe



| Outlet diameter ØD [mm] | Weight [kg] | Item number EPDM |
|----------------------------|----------------|---------------------|
| DN 70/75 | 0.06 | 400580 |
| DN 100/110 | 0.10 | 400581 |

Note:

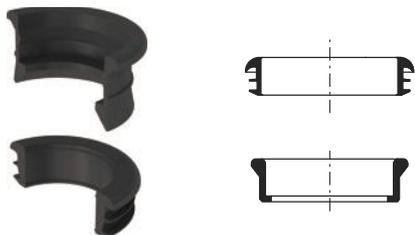
While purchasing AP reduction sealing cast iron spigot → ACO pipe it is necessary order AP cast iron connector.

Reduction sealing ACO pipe → cast Iron spigot



| Outlet diameter ØD [mm] | Weight [kg] | Item number EPDM |
|----------------------------|----------------|---------------------|
| DN 70/75 | 0.05 | 400586 |
| DN 100/110 | 0.08 | 400587 |
| DN 150/160 | 0.12 | 400588 |

Reduction sealing set cast Iron



| Outlet diameter ØD [mm] | Weight [kg] | Item number EPDM |
|----------------------------|----------------|---------------------|
| DN 70/75 | 0.11 | 419370 |
| DN 100/110 | 0.18 | 419371 |

Note:

Set of reduction sealings cast iron spigot → ACO pipe socket and ACO pipe spigot → cast iron socket.

Seal

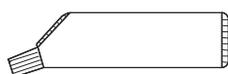


| Outlet diameter ØD [mm] | Weight [kg] | Item number EPDM | Item number Viton |
|----------------------------|----------------|---------------------|----------------------|
| 50 | 0.01 | 98400 | 98404 |
| 75 | 0.02 | 98401 | 98405 |
| 110 | 0.05 | 98402 | 98406 |
| 125 | 0.06 | 419453 | 419454 |
| 160 | 0.08 | 98403 | 98407 |
| 200 | 0.10 | 98433 | 98437 |
| 250 | 0.12 | 414146 | 414147 |

Note:

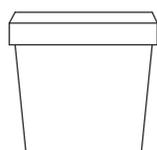
Spare ACO pipe seals in EPDM and Viton® grades are available for all pipe sizes. All seals incorporate the unique ACO pipe double lip seal arrangement for increased reliability and security. Both seal materials are mechanically interchangeable thereby facilitating easy on-site upgrade from EPDM to Viton®, or other. For seal installation instructions, refer to Installation recommendations (page 223). To enhance identification, the seals are colour coded as follows: EPDM seals are BLACK. Viton® seals are GREEN.

ACO Universal lubricant



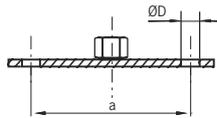
| Weight [kg] | Item number |
|-------------|------------------|
| 0.15 | E80350000 |

ACO Universal lubricant in bucket 1kg



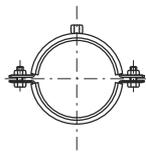
| Weight [kg] | Item number |
|-------------|------------------|
| 1.00 | E80350001 |

Fixing plate



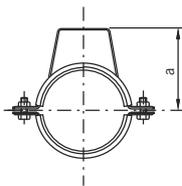
| Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number Galvanised steel | Item number 1.4404 |
|----------------------------|----------------------|----------------|---------------------------------|-----------------------|
| 8.4 | 70 | 0.05 | 400525 | 400521 |

Support bracket with rubber infill



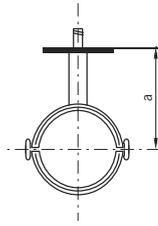
| Outlet diameter ØD [mm] | Weight [kg] | Item number Galvanised steel | Item number 1.4404 |
|----------------------------|----------------|---------------------------------|-----------------------|
| 50 | 0.14 | 400533 | 400529 |
| 75 | 0.23 | 400534 | 400530 |
| 110 | 0.33 | 400535 | 400531 |
| 125 | 0.36 | 419854 | 419855 |
| 160 | 0.39 | 400536 | 400532 |
| 200 | 0.44 | 419451 | 419675 |
| 250 | 0.60 | - | 417149 |

Support bracket with rubber infill and stirrup



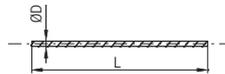
| Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number Galvanised steel | Item number 1.4404 |
|----------------------------|----------------------|----------------|---------------------------------|-----------------------|
| 50 | 56 | 0.18 | 400541 | 400537 |
| 75 | 80 | 0.28 | 400542 | 400538 |
| 110 | 116 | 0.41 | 400543 | 400539 |
| 160 | 166 | 0.48 | 400544 | 400540 |

Support bracket with rubber infill and key



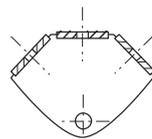
| Outlet diameter ØD [mm] | Dimensions a [mm] | Weight [kg] | Item number Galvanised steel | Item number 1.4404 |
|----------------------------|----------------------|----------------|---------------------------------|-----------------------|
| 50 | 120 | 0.16 | 400549 | 400545 |
| 75 | 133 | 0.26 | 400550 | 400546 |
| 110 | 150 | 0.38 | 400551 | 400547 |
| 160 | 175 | 0.44 | 400552 | 400548 |

Threaded support pole M8



| ØD [mm] | L [mm] | Weight [kg] | Item number Galvanised steel | Item number 1.4404 |
|------------|--------|----------------|---------------------------------|-----------------------|
| M8 | 1000 | 0.39 | 400557 | 400553 |
| M8 | 90 | 0.03 | 400558 | 400554 |
| M8 | 40 | 0.016 | 400559 | 400555 |

Set for axial fixing



| Weight [kg] | Item number Galvanised steel | Item number 1.4404 |
|----------------|---------------------------------|-----------------------|
| 0.11 | 400565 | 400561 |

Cutter manual set 50-110 mm



| Note | Weight [kg] | Item number |
|-----------------|-------------|---------------|
| in plastic case | 3.50 | 419363 |

Replacement discs manual cutters



| Note | Weight [kg] | Item number |
|-------------------|-------------|---------------|
| for cutter 419363 | 0.005 | 419365 |

Note:
Minimum order quantity – 10 pcs.

Manual cutter



| ØD [mm] | Weight [kg] | Item number |
|---------|-------------|---------------|
| 50-110 | 1.0 | 419364 |
| 110-160 | 2.0 | 400738 |

Note:
ACO pipe manual cutter should be ordered together with a holder for manual cutting.

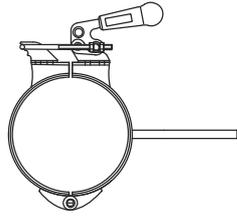
Replacement discs for manual cutter



| Note | Weight [kg] | Item number |
|------------------------------|-------------|---------------|
| for cutter 400738 and 419364 | 0.005 | 400578 |

Note:
Minimum order quantity – 10 pcs.

Holder for manual cutting



| ØD [mm] | Weight [kg] | Item number |
|----------------|--------------------|--------------------|
| 125 | 3.5 | 419857 |
| 160 | 4.0 | 400742 |
| 200 | 4.5 | 400743 |

Note:
While order AP holder for manual cutting it is necessary order AP manual cutter.

Joiner/disjoiner



| ØD [mm] | Weight [kg] | Item number |
|----------------|--------------------|--------------------|
| 100 - 400 | 25 | 417070 |

Flow rates

Full bore flow rate tables for varying gradients

For rainwater/storm drainage applications

Flow rates based on Colebrook-White formula.
Roughness coefficient $k_s = 0.6 \text{ mm}$

| Gradient [%] | Pipe Ø 50 mm | | Pipe Ø 75 mm | | Pipe Ø 110 mm | | Pipe Ø 125 mm | |
|-----------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| | Flow rate Q [l/s] | Velocity v [m/s] |
| 10.0 | 2.74 | 1.52 | 8.40 | 2.01 | 23.81 | 2.60 | 33.61 | 2.83 |
| 7.5 | 2.38 | 1.31 | 7.28 | 1.74 | 20.62 | 2.25 | 29.11 | 2.45 |
| 5.0 | 1.94 | 1.07 | 5.94 | 1.42 | 16.83 | 1.84 | 23.77 | 2.00 |
| 4.5 | 1.84 | 1.02 | 5.64 | 1.35 | 15.97 | 1.74 | 22.55 | 1.90 |
| 4.0 | 1.73 | 0.96 | 5.31 | 1.27 | 15.06 | 1.64 | 21.26 | 1.79 |
| 3.5 | 1.62 | 0.90 | 4.97 | 1.19 | 14.08 | 1.54 | 19.88 | 1.67 |
| 3.0 | 1.50 | 0.83 | 4.60 | 1.10 | 13.04 | 1.42 | 18.41 | 1.55 |
| 2.5 | 1.37 | 0.76 | 4.20 | 1.00 | 11.90 | 1.30 | 16.80 | 1.41 |
| 2.0 | 1.23 | 0.68 | 3.76 | 0.90 | 10.64 | 1.16 | 15.03 | 1.26 |
| 1.5 | 1.06 | 0.59 | 3.25 | 0.78 | 9.22 | 1.01 | 13.01 | 1.10 |
| 1.0 | 0.87 | 0.48 | 2.66 | 0.63 | 7.53 | 0.82 | 10.63 | 0.89 |

| Gradient [%] | Pipe Ø 160 mm | | Pipe Ø 200 mm | | Pipe Ø 250 mm | |
|-----------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| | Flow rate Q [l/s] | Velocity v [m/s] | Flow rate Q [l/s] | Velocity v [m/s] | Flow rate Q [l/s] | Velocity v [m/s] |
| 10.0 | 64.15 | 3.31 | 116.89 | 3.83 | 218.31 | 4.45 |
| 7.5 | 55.56 | 2.87 | 101.22 | 3.32 | 188.95 | 3.85 |
| 5.0 | 45.36 | 2.34 | 82.65 | 2.71 | 154.13 | 3.14 |
| 4.5 | 43.03 | 2.22 | 78.40 | 2.57 | 146.17 | 2.98 |
| 4.0 | 40.57 | 2.10 | 73.92 | 2.43 | 137.77 | 2.81 |
| 3.5 | 37.95 | 1.96 | 69.14 | 2.27 | 128.82 | 2.63 |
| 3.0 | 35.13 | 1.81 | 64.01 | 2.10 | 119.20 | 2.43 |
| 2.5 | 32.07 | 1.66 | 58.43 | 1.92 | 108.74 | 2.22 |
| 2.0 | 28.68 | 1.48 | 52.26 | 1.71 | 97.18 | 1.98 |
| 1.5 | 24.84 | 1.28 | 45.26 | 1.48 | 84.05 | 1.71 |
| 1.0 | 20.28 | 1.05 | 36.95 | 1.21 | 68.48 | 1.40 |

Note:

The flow rates shown above assume an unrestricted discharge from the pipe. For installations without an unrestricted discharge, the flow rate will be affected by the downstream throttle.

For shallow gradients, the Colebrook-White formula underestimates flow rates (because when gradient tends towards zero %, velocity also tends to zero). For level or nearly level installations (slope < 1 %), spatially varied flow tables should be used.

Full bore flow rate tables for varying gradients

For soil/foul water drainage applications

Flow rates based on Colebrook-White formula.
Roughness coefficient $k_s = 0.6$ mm

| Gradient [%] | Pipe Ø 50 mm | | Pipe Ø 75 mm | | Pipe Ø 110 mm | | Pipe Ø 125 mm | |
|-----------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| | Flow rate Q [l/s] | Velocity v [m/s] |
| 10.0 | 2.30 | 1.27 | 7.14 | 1.71 | 20.45 | 2.23 | 28.97 | 2.44 |
| 7.5 | 1.99 | 1.10 | 6.19 | 1.48 | 17.71 | 1.93 | 25.09 | 2.11 |
| 5.0 | 1.63 | 0.90 | 5.05 | 1.21 | 14.46 | 1.58 | 20.49 | 1.72 |
| 4.5 | 1.54 | 0.85 | 4.79 | 1.14 | 13.72 | 1.50 | 19.43 | 1.64 |
| 4.0 | 1.46 | 0.80 | 4.52 | 1.08 | 12.94 | 1.41 | 18.32 | 1.54 |
| 3.5 | 1.36 | 0.75 | 4.23 | 1.01 | 12.10 | 1.32 | 17.14 | 1.44 |
| 3.0 | 1.26 | 0.70 | 3.91 | 0.93 | 11.20 | 1.22 | 15.87 | 1.34 |
| 2.5 | 1.15 | 0.64 | 3.57 | 0.85 | 10.23 | 1.12 | 14.49 | 1.22 |
| 2.0 | 1.03 | 0.57 | 3.19 | 0.76 | 9.15 | 1.00 | 12.96 | 1.09 |
| 1.5 | 0.89 | 0.49 | 2.77 | 0.66 | 7.92 | 0.86 | 11.22 | 0.94 |
| 1.0 | 0.73 | 0.40 | 2.26 | 0.54 | 6.47 | 0.71 | 9.16 | 0.77 |

| Gradient [%] | Pipe Ø 160 mm | | Pipe Ø 200 mm | | Pipe Ø 250 mm | |
|-----------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| | Flow rate Q [l/s] | Velocity v [m/s] | Flow rate Q [l/s] | Velocity v [m/s] | Flow rate Q [l/s] | Velocity v [m/s] |
| 10.0 | 55.61 | 2.87 | 101.81 | 3.34 | 206.87 | 4.22 |
| 7.5 | 48.16 | 2.49 | 88.17 | 2.89 | 177.84 | 3.62 |
| 5.0 | 39.32 | 2.03 | 71.99 | 2.36 | 143.52 | 2.93 |
| 4.5 | 37.30 | 1.93 | 68.30 | 2.24 | 135.71 | 2.77 |
| 4.0 | 35.17 | 1.82 | 64.39 | 2.11 | 127.46 | 2.60 |
| 3.5 | 32.90 | 1.70 | 60.23 | 1.98 | 118.69 | 2.42 |
| 3.0 | 30.46 | 1.57 | 55.76 | 1.83 | 109.29 | 2.23 |
| 2.5 | 27.80 | 1.44 | 50.90 | 1.67 | 99.10 | 2.02 |
| 2.0 | 24.87 | 1.28 | 45.53 | 1.49 | 87.86 | 1.79 |
| 1.5 | 21.53 | 1.11 | 39.43 | 1.29 | 75.18 | 1.53 |
| 1.0 | 17.58 | 0.91 | 32.19 | 1.06 | 60.25 | 1.23 |

Note:

The flow rates shown above assume an unrestricted discharge from the pipe. For installations without an unrestricted discharge, the flow rate will be affected by the downstream throttle.

For shallow gradients, the Colebrook-White formula underestimates flow rates (because when gradient tends towards zero %, velocity also tends to zero). For level or nearly level installations (slope < 1 %), spatially varied flow tables should be used.

Full bore flow rate table for levelled or nearly level gradients

Flow rates based on spatially-varied flow formula for steady non-uniform flow

Strickler coefficient = 90

| Pipe diameter [mm] | Length [mm] | Gradient | | | |
|-----------------------|----------------|---------------------------|----------------------------|---------------------------|----------------------------|
| | | 0.0% Flow rate Q [l/s] | 0.25% Flow rate Q [l/s] | 0.5% Flow rate Q [l/s] | 0.75% Flow rate Q [l/s] |
| 50 | 5 | 0.40 | 0.57 | 0.75 | 0.92 |
| 50 | 10 | 0.30 | 0.54 | 0.75 | 0.92 |
| 50 | 15 | 0.26 | 0.53 | 0.75 | 0.92 |
| 50 | 20 | 0.23 | 0.53 | 0.75 | 0.92 |
| 75 | 5 | 1.45 | 1.75 | 2.40 | 2.90 |
| 75 | 10 | 1.10 | 1.72 | 2.35 | 2.90 |
| 75 | 15 | 0.95 | 1.70 | 2.35 | 2.90 |
| 75 | 20 | 0.85 | 1.70 | 2.35 | 2.90 |
| 110 | 5 | 4.50 | 5.55 | 6.75 | 8.15 |
| 110 | 10 | 3.60 | 5.05 | 6.60 | 8.15 |
| 110 | 15 | 3.20 | 4.90 | 6.50 | 8.15 |
| 110 | 20 | 2.80 | 4.80 | 6.50 | 8.15 |
| 125 | 5 | 6.45 | 7.90 | 9.60 | 11.45 |
| 125 | 10 | 5.20 | 7.25 | 9.50 | 11.45 |
| 125 | 15 | 4.55 | 7.00 | 9.50 | 11.45 |
| 125 | 20 | 4.10 | 6.85 | 9.50 | 11.45 |
| 160 | 5 | 13.00 | 15.40 | 18.60 | 21.20 |
| 160 | 10 | 10.90 | 14.30 | 18.50 | 21.20 |
| 160 | 15 | 9.50 | 13.80 | 18.40 | 21.20 |
| 160 | 20 | 8.50 | 13.50 | 18.30 | 21.20 |
| 200 | 5 | 24.80 | 29.00 | 34.20 | 38.70 |
| 200 | 10 | 20.80 | 26.70 | 33.80 | 38.40 |
| 200 | 15 | 18.60 | 25.70 | 33.70 | 38.40 |
| 200 | 20 | 17.00 | 25.00 | 33.60 | 38.40 |

Note:

Using spatially varied flow equations, and with level or nearly level pipes, the length to an outlet will determine the maximum flow rate through the pipe.

The flow rates shown above assume an unrestricted discharge from the pipe. For installations without an unrestricted discharge, the flow rate will be affected by the downstream throttle.

Operating pressures

The ACO pipe socketed stainless steel pipe systems are fitted with a unique, double lip seal manufactured from either EPDM or Viton®. The double lip seal arrangement provides added security for the ultimate long term reliability. The ACO pipe; socketed stainless steel pipe systems are tested and approved for operating pressures in gravity, siphonic and vacuum systems.

ACO pipe stainless steel pipe systems are designed for maximum working pressure 0.5 bar according to EN 1124. In case where higher pressure may apply, it is necessary to combine the system with socket clamps.

| Pipe diameter [mm] | Operating pressure [bar] | |
|-----------------------|-----------------------------|----------------------|
| | Without socket clamp | With socket clamp |
| 50 | 0.5 | 2.0 |
| 75 | 0.5 | 2.0 |
| 110 | 0.5 | 2.0 |
| 125 | 0,5 | 2,0 |
| 160 | 0,5 | 1,0 |
| 200 | 0,3 | 1,0 |
| 250 | 0,3 | 1,0 |

| Vacuum applications | |
|-----------------------|-----------------------------|
| Pipe diameter [mm] | Operating pressure [bar] |
| 50 | -0,8 |
| 75 | -0,8 |
| 110 | -0,8 |
| 125 | -0,8 |
| 160 | -0,8 |
| 200 | -0,8 |
| 250 | -0,8 |

