

DIEHM



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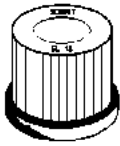
Screwthread tubes for glassblowers

GL	tube Ø	Art.no.	thick walled
14	12	18 830 01	18 830 01S
18	16	18 830 02	18 830 02S
25	22	18 830 03	18 830 03S
32	28	18 830 04	18 830 04S
45	40	18 830 05	18 830 05S



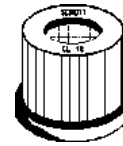
SVS screwthread adapter couplings

GL	Art.no.
14	18 830 11
18	18 830 12
25	18 830 13
32	18 830 14
45	18 830 15



Screw-caps closed

GL	Art.no.
14	18 830 21
18	18 830 22
25	18 830 23
32	18 830 24
45	18 830 25



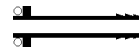
Screw-caps with aperture

GL	Art.no.
14	18 830 31
18	18 830 32
25	18 830 33
32	18 830 34
45	18 830 35



Silicone rubber sealing rings with vulcanized-on PTFE washers

GL	for tube	Art.no.
14	5,5 - 6,5 mm	18 830 41
18	5,5 - 6,5 mm	18 830 51
	7,5 - 9,0 mm	18 830 52
	9,0 - 11 mm	18 830 53
25	7,9 - 9,0 mm	18 830 61
	9,0 - 11 mm	18 830 62
	11 - 13 mm	18 830 63
32	9,0 - 11 mm	18 830 71
	11 - 13 mm	18 830 72
	13 - 15 mm	18 830 73
	15 - 17 mm	18 830 74
45	17 - 19 mm	18 830 75
	25 - 27 mm	18 830 81
	31 - 33 mm	18 830 82



Hose connectons straight

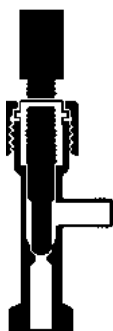
GL	for hose	Art.no.
PP		
14	9 mm	18830OPPG1409
18	10 mm	18830OPPG1810
PFA		
14	9 mm	18830OPFG1409
18	10 mm	18830OPFG1810
stainless steel		
18	10 mm	18830OSSG1810



Hose connectons curved

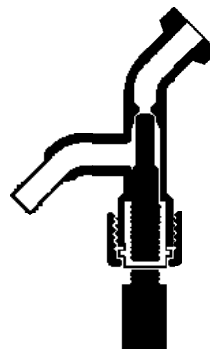
GL	for hose	Art.no.
PP		
14	8 mm	18830OPPB1408
18	10 mm	18830OPPB1810
PFA		
14	8 mm	18830OPFB1408
18	10 mm	18830OPFB1810

Valves and spare parts



Cornervalue

KF .. /*	GL	bore	Art.no.
15/*	18	3 mm	18 900 02-*
15/*	18	6 mm	18 900 03-*
15/*	18	10 mm	18 900 04-*
15/*	18	15 mm	18 900 05-*
25/*	18	10 mm	18 900 06-*
25/*	32	25 mm	18 900 07-*
40/*	45	40 mm	18 900 08-*
50/*	45	50 mm	18 900 09-*



One way valve

KF .. /*	GL	bore	Art.no.
15/*	18	3 mm	18 900 22-*
15/*	18	6 mm	18 900 23-*
15/*	18	10 mm	18 900 24-*
15/*	18	15 mm	18 900 25-*
25/*	18	10 mm	18 900 26-*
25/*	32	25 mm	18 900 27-*
40/*	45	40 mm	18 900 28-*
50/*	45	50 mm	18 900 29-*



One way valve

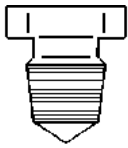
KF .. /*	KF .. /*	bore	Art.no.
15/*	15/*	3 mm	18 900 32-**
15/*	15/*	6 mm	18 900 33-**
15/*	15/*	10 mm	18 900 34-**
15/*	15/*	15 mm	18 900 35-** X
25/*	25/*	10 mm	18 900 36-**
25/*	25/*	25 mm	18 900 37-** X
40/*	40/*	40 mm	18 900 38-** X
50/*	50/*	50 mm	18 900 39-** X

With the x marked valves the spindles are supplied with a spring system which assures useage with system and temperature changes that the sealing pressure remains the same

- 1 = ball
- 2 = socket
- 3 = plane

Stoppers

Hexagonal stoppers



Cone NS	Art.no.
12,5/21	19 010 02
14,5/23	19 010 04
18,8/26	19 010 06
24/29	19 010 08
29,2/32	19 010 10
34,5/35	19 010 12
45/40	19 010 14

ground joint ball stoppers in “ball



ball	Art.no.
S13	19 013 13
S19	19 013 19
S29	19 013 29
S35	19 013 35
S40	19 013 40
S51	19 013 51
S64	19 013 64

KF pipe closure

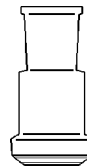


DN	ball	socket	plane
15	BL 15/1	BL 15/2	BL 15/3
25	BL 25/1	BL 25/2	BL 25/3
40	BL 40/1	BL 40/2	BL 40/3
50	BL 50/1	BL 50/2	BL 50/3
80	BL 80/1	BL 80/2	BL 80/3
100	BL100/1	BL100/2	BL100/3
150	BL150/1	BL150/2	BL150/3
200	BL200/1	BL200/2	BL200/3
300	BL300/1	BL300/2	BL300/3
400			BL400/3
450			BL450/3
600			BL600/3
800			BL800/3
1000			BL1000/3

Reduction adapters

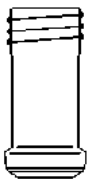


Socket / cone	Art.no.
14,5 / 29,2	19 114 29
14,5 / 45	19 114 45
29,2 / 14,5	19 129 14
29,2 / 45	19 129 45
45 / 14,5	19 145 14
45 / 29,2	19 145 29



KF / socket	Art.no.
KF 15/1 / NS 14,5	19 215 14
KF 25/1 / NS 29,2	19 225 29
KF 40/1 / NS 29,2	19 240 29
KF 50/1 / NS 29,2	19 250 29
KF 50/1 / NS 45	19 250 45

Flange / GL



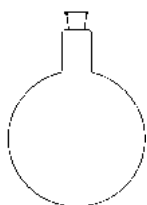
KF / GL	Art.no.
KF 15/1 / GL18	19 315 181
KF 15/2 / GL18	19 315 182
KF 15/3 / GL18	19 315 183
KF 15/1 / GL 25	19 315 251
KF 15/2 / GL 25	19 315 252
KF 15/3 / GL 25	19 315 253
KF 25/1 / GL 18	19 325 191
KF 25/2 / GL 18	19 325 192
KF 25/3 / GL 18	19 325 193
KF 25/1 / GL 25	19 325 251
KF 25/2 / GL 25	19 325 252
KF 25/3 / GL 25	19 325 253
KF 25/1 / GL 32	19 325 321
KF 25/2 / GL 32	19 325 322
KF 25/3 / GL 32	19 325 323
KF 40/1 / GL 45	19 340 451
KF 40/2 / GL 45	19 340 452
KF 40/3 / GL 45	19 340 453
KF 50/1 / GL 45	19 350 451
KF 50/2 / GL 45	19 350 452
KF 50/3 / GL 45	19 350 453

Flange / GL

KF / GL	Art.no.
NS 14,5 / GL14	19 314 14
NS 14,5 / GL18	19 314 18
NS 18,8 / GL14	19 318 14
NS 18,8 / GL18	19 318 18
NS 18,8 / GL25	19 318 25
NS 24 / GL14	19 324 14
NS 24 / GL18	19 324 18
NS 24 / GL25	19 324 25
NS 24 / GL32	19 324 32
NS 29 / GL14	19 329 14
NS 29 / GL18	19 329 18
NS 29 / GL25	19 329 25
NS 29 / GL32	19 329 32
NS 34 / GL14	19 334 14
NS 34 / GL18	19 334 18
NS 34 / GL25	19 334 25
NS 34 / GL32	19 334 32
NS 45 / GL14	19 345 14
NS 45 / GL18	19 345 18
NS 45 / GL25	19 345 25
NS 45 / GL32	19 345 32

45° curved = article no. + “45”
90° curved = article no. + “90”

45° curved = article no. + “45”
90° curved = article no. + “90”



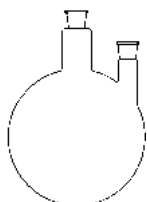
Round-bottom flasks

	1 litre	2 litre	3 litre	4 litre	5 litre	6 litre	10 litre	20 litre
centre NS14,5	38 111 14							
centre NS 29,2	38 111 29	38 211 29	38 311 29	38 411 29	38 511 29	38 611 29	38 711 29	38 811 29
centre NS 45		38 211 45	38 311 45	38 411 45	38 511 45	38 611 45	38 711 45	38 811 45

Centre NS29

side 1xNS14 straight	38 121 29	38 221 29						
side 1xNS14 15°	38 122 29	38 222 29	38 322 29	38 422 29	38 522 29	38 622 29	38 722 29	38 822 29
side 1xNS29 straight	38 123 29	38 223 29	38 323 29	38 423 29	38 523 29	38 623 29	38 723 29	38 823 29

side 1xNS29 straight and 1xNS14 15°	38 131 29	38 231 29	38 331 29	38 431 29	38 531 29	38 631 29	38 731 29	38 831 29
side 1xNS29 15° and 1xNS14 15°	38 132 29	38 232 29	38 332 29	38 432 29	38 532 29	38 632 29	38 732 29	38 832 29
side 2xNS29 straight	38 133 29	38 233 29	38 333 29	38 433 29	38 533 29	38 633 29	38 733 29	38 833 29
side 2xNS29 15°	38 134 29	38 234 29	38 334 29	38 434 29	38 534 29	38 634 29	38 734 29	38 834 29



side 2xNS29 straight and 1xNS14 15°	38 141 29	38 241 29	38 341 29	38 441 29	38 541 29	38 641 29	38 741 29	38 841 29
side 1xNS29 straight, 1xNS29 15° and 1xNS14 15°	38 142 29	38 242 29	38 342 29	38 442 29	38 542 29	38 642 29	38 742 29	38 842 29
side 2xNS29 15° and 1 x NS14 15°	38 143 29	38 243 29	38 343 29	38 443 29	38 543 29	38 643 29	38 743 29	38 843 29
side 3xNS29 straight	38 144 29	38 244 29	38 344 29	38 444 29	38 544 29	38 644 29	38 744 29	38 844 29
side 3xNS29 15°	38 145 29	38 245 29	38 345 29	38 445 29	38 545 29	38 645 29	38 745 29	38 845 29

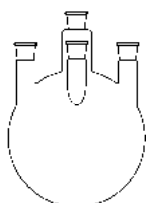
side 3xNS29 straight and 1xNS14 15°	38 151 29	38 251 29	38 351 29	38 451 29	38 551 29	38 651 29	38 751 29	38 851 29
side 2xNS29 straight, 1xSN29 15° und 1xNS14 15°	38 152 29	38 252 29	38 352 29	38 452 29	38 552 29	38 652 29	38 752 29	38 852 29
side 3xSN29 15° and 1xNS14 15°	38 153 29	38 253 29	38 353 29	38 453 29	38 553 29	38 653 29	38 753 29	38 853 29
side 4xNS29 straight	38 154 29	38 254 29	38 354 29	38 454 29	38 554 29	38 654 29	38 754 29	38 854 29
side 4xNS29 15°	38 155 29	38 255 29	38 355 29	38 455 29	38 555 29	38 655 29	38 755 29	38 855 29

Centre NS45

side 1xNS14 15°	38 222 45	38 322 45	38 422 45	38 522 45	38 622 45	38 722 45	38 822 45
side 1xNS29 straight	38 223 45	38 323 45	38 423 45	38 523 45	38 623 45	38 723 45	38 823 45
side 1xNS29 straight and 1xNS14 15°	38 231 45	38 331 45	38 431 45	38 531 45	38 631 45	38 731 45	38 831 45
side 1xNS29 15° and 1xNS14 15°	38 232 45	38 332 45	38 432 45	38 532 45	38 632 45	38 732 45	38 832 45
side 2xNS29 straight	38 233 45	38 333 45	38 433 45	38 533 45	38 633 45	38 733 45	38 833 45
side 2xNS29 15°	38 234 45	38 334 45	38 434 45	38 534 45	38 634 45	38 734 45	38 834 45

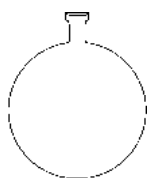
side 2xNS29 straight and 1xNS14 15°	38 241 45	38 341 45	38 441 45	38 541 45	38 641 45	38 741 45	38 841 45
side 1xNS29 straight, 1xNS29 15° and 1xNS14 15°	38 242 45	38 342 45	38 442 45	38 542 45	38 642 45	38 742 45	38 842 45
side 2xNS29 15° and 1 x NS14 15°	38 243 45	38 343 45	38 443 45	38 543 45	38 643 45	38 743 45	38 843 45
side 3xNS29 straight	38 244 45	38 344 45	38 444 45	38 544 45	38 644 45	38 744 45	38 844 45
side 3xNS29 15°	38 245 45	38 345 45	38 445 45	38 545 45	38 645 45	38 745 45	38 845 45

side 3xNS29 straight and 1xNS14 15°	38 251 45	38 351 45	38 451 45	38 551 45	38 651 45	38 751 45	38 851 45
side 2xNS29 straight, 1xSN29 15° and 1xNS14 15°	38 252 45	38 352 45	38 452 45	38 552 45	38 652 45	38 752 45	38 852 45
side 3xSN29 15° and 1xNS14 15°	38 253 45	38 353 45	38 453 45	38 553 45	38 653 45	38 753 45	38 853 45
side 4xNS29 straight	38 254 45	38 354 45	38 454 45	38 554 45	38 654 45	38 754 45	38 854 45
side 4xNS29 15°	38 255 45	38 355 45	38 455 45	38 555 45	38 655 45	38 755 45	38 855 45



Items are possible in all variants.

Round-bottom flasks with KF-flanges



	1 litre	2 litre	3 litre	4 litre	5 litre	6 litre	10 litre	20 litre
centre KF 15/2	38 111 15	38 211 15	38 311 15	38 411 15	38 511 15	38 611 15	38 711 15	38 811 15
centre KF 25/2		38 211 25	38 311 25	38 411 25	38 511 25	38 611 25	38 711 25	38 811 25
centre KF 40/2			38 311 40	38 411 40	38 511 40	35 611 40	38 711 40	38 811 40
centre KF 50/2					38 511 50	38 600 50	38 711 50	38 811 50
centre KF 80/2							38 711 80	38 811 80
centre KF100/2							38 711 99	38 811 99

Centre KF15/2

side 1 x GL18 15°	38 121 15	38 221 15	38 321 15	38 421 15	38 521 15	38 621 15	38 721 15	38 821 15
side 1 x KF 15/2 20°	38 122 15	38 222 15	38 322 15	38 422 15	38 522 15	38 622 15	38 722 15	38 822 15
side 1 x GL18 15° and bottom outlet KF15/3	38 123 15	38 223 15	38 323 15	38 423 15	38 523 15	38 623 15	38 723 15	38 823 15

side 1 x KF15/2 20° and 1 x GL18 15°	38 131 15	38 231 15	38 331 15	38 431 15	38 531 15	38 631 15	38 731 15	38 831 15
side 1 x KF15/2 20°, 1 x GL18 15° and bottom outlet	38 132 15	38 232 15	38 332 15	38 432 15	38 532 15	38 632 15	38 732 15	38 832 15
side 2 x KF15/2 20°	38 133 15	38 233 15	38 333 15	38 433 15	38 533 15	38 633 15	38 733 15	38 833 15
side 2 x KF15/2 20° and bottom outlet KF15/3	38 134 15	38 234 15	38 334 15	38 434 15	38 534 15	38 634 15	38 734 15	38 834 15

seitlich 2 x KF15/2 20° and 1 x GL18 15°	38 141 15	38 241 15	38 341 15	38 441 15	38 541 15	38 641 15	38 741 15	38 841 15
side 2 x KF15/2 20°, 1 x GL18 15° and bottom outlet	38 142 15	38 242 15	38 342 15	38 442 15	38 542 15	38 642 15	38 742 15	38 842 15
side 3 x KF15/2 20°	38 143 15	38 243 15	38 343 15	38 443 15	38 543 15	38 643 15	38 743 15	38 843 15
side 3 x KF15/2 20° and bottom outlet Kf15/3	38 144 15	38 244 15	38 344 15	38 444 15	38 544 15	38 644 15	38 744 15	38 844 15

side 3 x KF15/2 20° and 1 x GL18 15°	38 151 15	38 251 15	38 351 15	38 451 15	38 551 15	38 651 15	38 751 15	38 851 15
side 3 x KF15/2 20°, 1 x GL18 15° and bottom outlet	38 152 15	38 252 15	38 352 15	38 452 15	38 552 15	38 652 15	38 752 15	38 852 15
side 4 x KF15/2 20°	38 153 15	38 253 15	38 353 15	38 453 15	38 553 15	38 653 15	38 753 15	38 853 15

side 4 x KF15/2 20° and bottom outlet Kf15/3	38 154 15	38 254 15	38 354 15	38 454 15	38 554 15	38 654 15	38 754 15	38 854 15
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Centre KF25/2

side 1 x GL18 15°	38 121 25	38 221 25	38 321 25	38 421 25	38 521 25	38 621 25	38 721 25	38 821 25
side 1 x KF 15/2 20°	38 122 25	38 222 25	38 322 25	38 422 25	38 522 25	38 622 25	38 722 25	38 822 25
side 1 x GL18 15° and bottom outlet KF15/3	38 123 25	38 223 25	38 323 25	38 423 25	38 523 25	38 623 25	38 723 25	38 823 25

side 1 x KF15/2 20° and 1 x GL18 15°	38 131 25	38 231 25	38 331 25	38 431 25	38 531 25	38 631 25	38 731 25	38 831 25
side 1 x KF15/2 20°, 1 x GL18 15° and bottom outlet	38 132 25	38 232 25	38 332 25	38 432 25	38 532 25	38 632 25	38 732 25	38 832 25
side 2 x KF15/2 20°	38 133 25	38 233 25	38 333 25	38 433 25	38 533 25	38 633 25	38 733 25	38 833 25
side 2 x KF15/2 20° and bottom outlet KF15/3	38 134 25	38 234 25	38 334 25	38 434 25	38 534 25	38 634 25	38 734 25	38 834 25

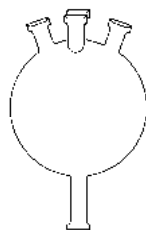
side 2 x KF15/2 20° and 1 x GL18 15°	38 141 25	38 241 25	38 341 25	38 441 25	38 541 25	38 641 25	38 741 25	38 841 25
side 2 x KF15/2 20°, 1 x GL18 15° and bottom outlet	38 142 25	38 242 25	38 342 25	38 442 25	38 542 25	38 642 25	38 742 25	38 842 25
side 3 x KF15/2 20°	38 143 25	38 243 25	38 343 25	38 443 25	38 543 25	38 643 25	38 743 25	38 843 25
side 3 x KF15/2 20° and bottom outlet Kf15/3	38 144 25	38 244 25	38 344 25	38 444 25	38 544 25	38 644 25	38 744 25	38 844 25

side 3 x KF15/2 20° and 1 x GL18 15°	38 151 25	38 251 25	38 351 25	38 451 25	38 551 25	38 651 25	38 751 25	38 851 25
side 3 x KF15/2 20°, 1 x GL18 15° and bottom outlet	38 152 25	38 252 25	38 352 25	38 452 25	38 552 25	38 652 25	38 752 25	38 852 25
side 4 x KF15/2 20°	38 153 25	38 253 25	38 353 25	38 453 25	38 553 25	38 653 25	38 753 25	38 853 25

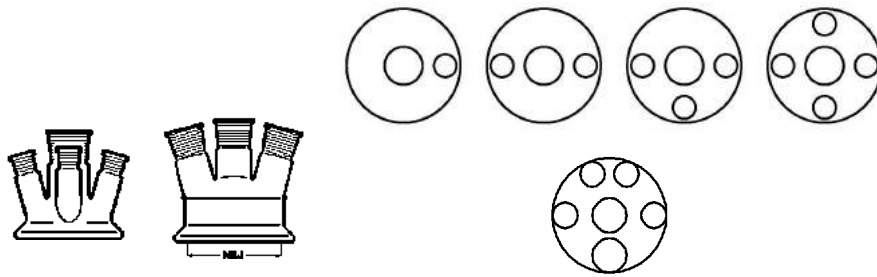
side 4 x KF15/2 20° and bottom outlet Kf15/3	38 154 25	38 254 25	38 354 25	38 454 25	38 554 25	38 654 25	38 754 25	38 854 25
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The ground flange is carried out as a default at a length of 40 mm. If it should be carried out by a heating cover, this must be indicated at the order.

Items are possible in all variants.



Lid adapters DN 60 (laboratory flange) for reaction vessels



mounting dimensions

center neck KF 15/3	85/100 mm
center neck NS 14	95/110 mm
center neck NS 19	100/115 mm
center neck NS 29	105/120 mm
side neck vertical NS 14	75 mm

purchase number

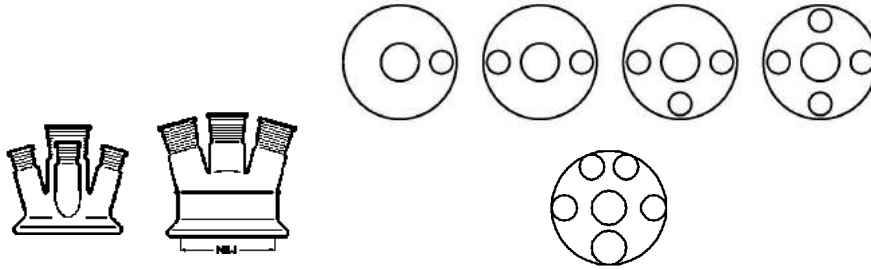
Center neck	side neck 3:00 15° angled	side neck 6:00 15° angled	side neck 9:00 vertical	side neck 12:00 15° angled	flat form	high form	
NS 14					3101110000	3102110000	
NS 14	NS 14				3101211101	3102211101	
NS 14	NS 14			NS 14	3101311101	3102311101	
NS 14	NS 14		NS 14	NS 14	3101411101	3102411101	
NS 14	NS 14	NS 14	NS 14	NS 14	3101511101	3102511101	
NS 14	NS 19	NS 14	NS 14	NS 14	3101518101	3102518101	
NS 19	NS 14				3101120000	3102120000	
NS 19	NS 14			NS 14	3101221101	3102221101	
NS 19	NS 14		NS 14	NS 14	3101321101	3102321101	
NS 19	NS 14	NS 14	NS 14	NS 14	3101421101	3102421101	
NS 19					3101521101	3102521101	
NS 29					3101140000	3102140000	
NS 29	NS 14				3101241101	3102241101	
NS 29	NS 14			NS 14	3101341101	3102341101	
NS 29	NS 14		NS 14	NS 14	3101441101	3102441101	
Center neck	side neck 1:00	side neck 3:00 vertical	side neck 6:00 15° angled	side neck 9:00 vertical	side neck 11:00 vertical	flat form	high form
NS 14	GL14	NS 14	NS 14	NS 14	GL14	3101611101	3102611101
NS 19	GL14	NS 14	NS 14	NS 14	GL14	3101621101	3102621101

*R = Rodaviss (Socket with screw thread and lock nut)

Lid adapters DN 100 /laboratory flange) for reaction vessels

mounting dimensions

center neck KF 15/3	90 mm
center neck NS 29	110 mm
center neck NS 45	120 mm
side neck straight NS 14	90 mm
side neck straight NS 29	105 mm



Center neck



side neck
3:00
15° angled



side neck
6:00
15° angled



side neck
9:00
15° angled



side neck
12:00
vertical

flat form

high form

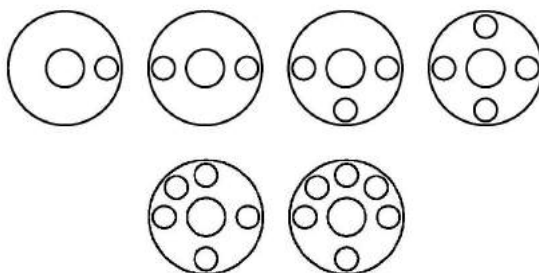
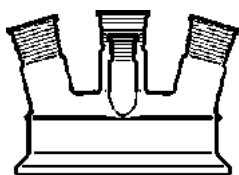
						flat form	high form
NS 14,5						311110000	3112110000
NS 24						3111130000	3112130000
NS 29						3111140000	3112140000
NS 45						3111160000	3112160000
KF 15/3						3111170000	3112170000
KF 25/3						3111180000	3112180000
Ventil 10 mm						3111100000V10	3112100000V10
Ventil 16 mm						3111100000V16	3112100000V16
Ventil 20 mm						3111100000V20	3112100000V20
NS 29	NS 29					3111241130	3112241130
KF 15/3	KF 15/3					3111272110	3112272110
KF 25/3	KF 15/3					3111282110	3112282110
NS 29	NS 29			NS 29 (15°)		3111341130	3112341130
NS 45	NS 29			NS 29 (15°)		3111361130	3112361130
KF 15/3	KF 15/3			KF 15/3 (15°)		3111372110	3112372110
KF 25/3	KF 15/3			KF 15/3 (15°)		3111382110	3112382110
NS 29	NS 29	NS 29		NS 14,5		3111441130	3112441130
NS 29R	NS 29R	NS 29R		NS 14R		3111448130	3112448130
NS 45	NS 29	NS 29		NS 14,5		3111461130	3112461130
KF 25/3	NS 29	NS 29		NS 14,5		3111481130	3112481130
NS 29	NS 29	NS 29		NS 29		3111441131	3112441131
NS 29	NS 24	NS 24		NS 24		3111441135	3112441135
NS 29	NS 24	NS 24		NS 14,5		3111441136	3112441136
NS 29R	NS 29R	NS 29R		NS 29R		3111448131	3112448131
NS 29	NS 29	NS 29		NS 14,5	NS 29	3111541130	3112541130
NS 29R	NS 29R	NS 19R		NS 29R	NS 29R	3111548132	3112548132
NS 29	NS 29	NS 29		NS 29	NS 29	3111541131	3112541131

Center neck	side neck 1:00 15° angled	side neck 3:00 vertical	side neck 6:00 15° angled	side neck 9:00 vertical	side neck 11:00 vertical	flat form	high form
NS 29	GL18	NS 29	NS 29	NS 19	GL18	3111641130	3112641130
NS 29	GL18	NS 29	NS 29	NS 29	GL18	3111641131	3112641131
NS 29	GL25	NS 29	NS 29	NS 19	GL18	3111641132	3112641132
NS 29	GL25	NS 29	NS 29	NS 29	GL18	3111641133	3112641133
NS 29R	GL18	NS 29R	NS 29R	NS 19R	GL18	3111648130	3112648130
NS 29R	GL18	NS 29R	NS 29R	NS 29R	GL18	3111648131	3112648131
NS 29R	GL25	NS 29R	NS 29R	NS 19R	GL18	3111648132	3112648132
NS 29R	GL25	NS 29R	NS 29R	NS 29R	GL18	3111648133	3112648133

*R = Rodaviss (Socket with screw thread and lock nut)

**Rot = Rotulex (ungrinded spherical joint, with O-ring seal)

Lid adapters DN 120 (laboratory flange) for reaction vessels



mounting dimensions

center neck KF 15/3	110 mm
center neck NS 29	130 mm
center neck NS 45	140 mm
side neck straight NS 14	120 mm
side neck straight NS 29	105 mm



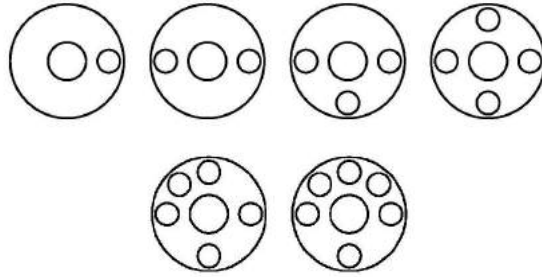
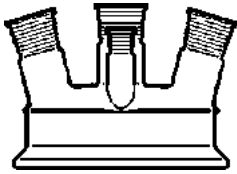
DN	Center neck	Side neck 3:00 15° angled	Side neck 6:00 15° angled	Side neck 9:00 vertical	Side neck 12:00 15° angled	Purchase no. high form
120	KF 15/3	---	---	---	---	3122172000
120	KF 15/3	KF 15/3	---	---	---	3122272101
120	KF 15/3	KF 15/3	---	KF 15/3 (15°)	---	3122372101
120	NS 29	---	---	---	---	3122141000
120	NS 45	---	---	---	---	3122161000
120	Ventil 10 mm mit GL 18					31221V10GL18
120	Ventil 16 mm mit GL 25					31221V16GL25
120	Ventil 20 mm mit GL 32					31221V20GL32
120	NS 29	NS 29	---	---	---	3122241130
120	NS 45	NS 29	---	---	---	3122261130
120	NS 29	NS 29	---	NS 29 (15°)	---	3122341130
120	NS 45	NS 29	---	NS 29 (15°)	---	3122361130
120	NS 45	NS 45	---	NS 29 (15°)	---	3122361150
120	NS 29	NS 29	NS 29	NS 14	---	3122441130
120	NS 45	NS 29	NS 29	NS 14	---	3122461130
120	NS 29	NS 29	NS 29	NS 29	---	3122441131
120	NS 45	NS 29	NS 29	NS 29	---	3122461131
120	NS 29	NS 29	NS 29	NS 14	NS 29	3122541130
120	NS 45	NS 29	NS 29	NS14	NS 29	3122561130
120	NS 29	NS 29	NS 29	NS 29	NS 29	3122541131
120	NS 45	NS 29	NS 29	NS 29	NS 29	3122561131
120	NS 45	NS 45	NS 29	NS 29	NS 29 (gerade)	3122561150

DN	Mittelhals	Seitenhals 1:30 15° schräg	Seitenhals 3:00 15° schräg	Seitenhals 6:00 15° schräg	Seitenhals 9:00 gerade	Seitenhals 10:30 15° schräg	Seitenhals 12:00 gerade	Bestellnummer hohe Form
120	NS 29R*		NS 29R*	NS 29R*	NS 29R*		NS 29R*	3122548131
120	NS 29R*	---	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3122648130
120	NS 29R*	GL 18	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3122748130
120	NS 29R*	GL 18	NS 45R*	NS 29R*	NS 29R*	GL 18	GL 25	3122748150
30° schräg								
120	NS 29R*	---	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3122648330
120	NS 29R*	---	NS 45R*	NS 29R*	NS 29R*	GL 18	GL 25	3122648350
120	NS 29R*	---	S 41 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3122649370
120	NS 29R*	---	S 64 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3122649380
120	NS 29R*	GL 18	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3122748330
120	NS 29R*	GL 18	NS 45R*	NS 29R*	NS 29R*	GL 18	GL 25	3122748350
120	NS 29R*	GL 18	S 41 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3122749370
120	NS 29R*	GL 18	S 64 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3122749380

*R = Rodaviss (Socket with screw thread and lock nut)

**Rot = Rotulex (ungrinded spherical joint, with O-ring seal)

Lid adapters DN 150 (/laboratory flange) for reaction vessels



mounting dimensions

center neck KF 15/3	115 mm
center neck KF 25/3	125 mm
center neck NS 29	135 mm
center neck NS 45	145 mm
side neck straight NS 14	120 mm
side neck straight NS 29	130 mm



DN	Center neck	Side neck 3:00 15° angled	Side neck 6:00 15° angled	Side neck 9:00 vertical	Side neck 12:00 15° angled	Purchase no. high form
150	KF 15/3	---	---	---	---	3132172000
150	KF 15/3	KF 15/3	---	---	---	3132272101
150	KF 15/3	KF 15/3	---	KF 15/3 (15°)	---	3132372101
150	KF 25/3	---	---	---	---	3132182000
150	KF 25/3	KF 15/3	---	---	---	3132282101
150	KF 25/3	KF 15/3	---	KF 15/3 (15°)	---	3132382101
150	NS 29	---	---	---	---	3132141000
150	NS 29	NS 29	---	---	---	3132241130
150	NS 29	NS 29	---	NS 29 (15°)	---	3132341130
150	NS 29	NS 29	NS 14	NS 29 (15°)	---	3132441130
150	NS 29	NS 29	NS 29	NS 29 (15°)	---	3132441131
150	NS 29	NS 29	NS 14	NS 29	NS 29	3132541130
150	NS 29	NS 29	NS 29	NS 29	NS 29	3132541131
150	NS 45	---	---	---	---	3132161000
150	NS 45	NS 29	---	---	---	3132261130
150	NS 45	NS 29	---	NS 29 (15°)	---	3132361130
150	NS 45	NS 45	---	NS 29 (15°)	---	3132361150
150	NS 45	NS 29	NS 14	NS 29 (15°)	---	3132461130
150	NS 45	NS 29	NS 29	NS 29 (15°)	---	3132461131
150	NS 45	NS 45	NS 29	NS 29 (15°)	---	3132461150
150	NS 45	NS 29	NS 14	NS 29	NS 29	3132561130
150	NS 45	NS 29	NS 29	NS 29	NS 29	3132561131
150	NS 45	NS 45	NS 29	NS 29	NS 29	3132561150

DN	Center neck	Side neck 1:30 15° angled	Side neck 3:00 15° angled	Side neck 6:00 15° angled	Side neck 9:00 vertical	Side neck 10:30 15° angled	Side neck 12:00 vertical	Purchase no. high form
150	NS 45R*	---	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3132668130
150	NS 45R*	---	NS 45R*	NS 29R*	NS 29R*	GL 18	GL 25	3132668150
150	NS 45R*	GL 18	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3132768130
150	NS 45R*	GL 18	NS 45R*	NS 29R*	NS 29R*	GL 18	GL 25	3132768150

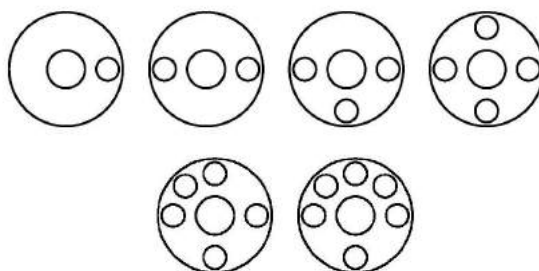
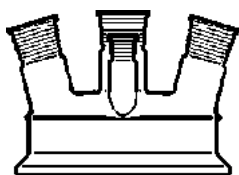
30° angled

150	NS 45R*	---	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3132668330
150	NS 45R*	---	NS 45R*	NS 29R*	NS 29R*	GL 18	GL 25	3132668350
150	NS 45R*	---	S 41 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3132669370
150	NS 45R*	---	S 64 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3132669380
150	NS 45R*	GL 18	NS 29R*	NS 29R*	NS 29R*	GL 18	GL 25	3132768330
150	NS 45R*	GL 18	NS 45R*	NS 29R*	NS 29R*	GL 18	GL 25	3132768350
150	NS 45R*	GL 18	S 41 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3132769370
150	NS 45R*	GL 18	S 64 Rot.**	NS 29R*	NS 29R*	GL 18	GL 25	3132769380

*R = Rodaviss (Socket with screw thread and lock nut)

**Rot = Rotulex (ungrinded spherical joint, with O-ring seal)

Lid adapters DN 200 /laboratory flange) for reaction vessels



mounting dimensions

center neck KF 15/3	135 mm
center neck KF 25/3	145 mm
center neck NS 29	155 mm
center neck NS 45	165 mm
side neck straight NS 14	135 mm
side neck straight NS 29	145 mm



DN	Center neck	Side neck 3:00 15° angled	Side neck 6:00 15° angled	Side neck 9:00 vertical	Side neck 12:00 15° angled	Purchase no. high form
200	KF 15/3	---	---	---	---	3142172000
200	KF 15/3	KF 15/3	---	---	---	3142272101
200	KF 15/3	KF 15/3	---	KF 15/3 (15°)	---	3142372101
200	KF 25/3	---	---	---	---	3142182000
200	KF 25/3	KF 15/3	---	---	---	3142282101
200	KF 25/3	KF 15/3	---	KF 15/3 (15°)	---	3142382101
200	NS 45	---	---	---	---	3142161000
200	NS 45	NS 29	---	---	---	3142261130
200	NS 45	NS 29	---	NS 29 (15°)	---	3142361130
200	NS 45	NS 45	---	NS 29 (15°)	---	3142361150
200	NS 45	NS 29	NS 29	NS 14	---	3142461130
200	NS 45	NS 29	NS 29	NS 29	---	3142461131
200	NS 45	NS 45	NS 29	NS 29	---	3142461150
200	NS 45	NS 29	NS 29	NS 14	NS 29	3142561130
200	NS 45	NS 29	NS 29	NS 29	NS 29	3142561131
200	NS 45	NS 45	NS 29	NS 29	NS 29	3142561150

DN	Center neck	Side neck 1:30 vertical	Side neck 3:00 15° angled	Side neck 6:00 15° angled	Side neck 9:00 vertical	Side neck 10:30 vertical	Side neck 12:00 vertical	Purchase no. high form
200	NS 45R*	---	NS 29R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142668130
200	NS 45R*	---	NS 45R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142668150
200	NS 45R*	NS 29R*	NS 29R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142768130
200	NS 45R*	NS 29R*	NS 45R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142768150

30° angled

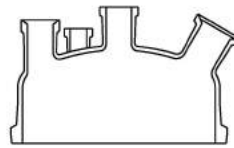
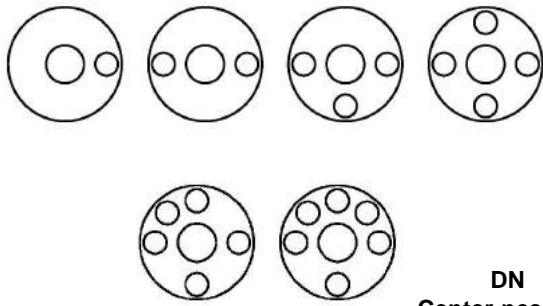
200	NS 45R*	---	NS 29R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142668330
200	NS 45R*	---	NS 45R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142668350
200	NS 45R*	---	S 41 Rot.**	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142669370
200	NS 45R*	---	S 64 Rot.**	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142669380
200	KF 40/3	---	NS 45R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142698350
200	KF 40/3	---	S 64 Rot.**	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142699380
200	NS 45R*	NS 29R*	NS 29R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142768330
200	NS 45R*	NS 29R*	NS 45R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142768350
200	NS 45R*	NS 29R*	S 41 Rot.**	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142769370
200	NS 45R*	NS 29R*	S 64 Rot.**	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142769380
200	KF 40/3	NS 29R*	NS 45R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142798350
200	KF 40/3	NS 29R*	S 64 Rot.**	NS 45R*	NS 29R*	NS 29R*	NS 29R*	3142799380

30° angled 20° angled

200	NS 45R*	---	S 64 Rot.**	LF 60***	NS 29R*	NS 29R*	NS 29R*	3142669381
200	KF 40/3	---	S 64 Rot.**	LF 60***	NS 29R*	NS 29R*	NS 29R*	3142699381
200	KF 40/3	NS 29R	S 64 Rot.**	LF 60***	NS 29R*	NS 29R*	NS 29R*	3142799381

Lid adapter KF 300

Technical flange DN 300



mounting dimensions

center neck KF 15/3	175 mm
center neck KF 25/3	185 mm
center neck KF 40/3	205 mm
center neck NS 29	195 mm
center neck NS 45	205 mm
side neck straight NS 14	175 mm
side neck straight NS 29	185 mm
side neck straight NS 45	200 mm
side neck straight KF 15	165 mm
side neck straight KF 25	190 mm
side neck straight KF 40	200 mm

Purchase no.	DN	Center neck		Side neck	Side neck	Side neck	Side neck	high form
		3:00 15° angled	6:00 15° angled	9:00 vertical	12:00 15° angled			
300	KF 15/3	---	---	---	---	---		3162132000
300	KF 15/3	KF 15/3	---	---	---	---		3162232101
300	KF 15/3	KF 15/3	---	KF 15/3 (15°)	---	---		3162332101
300	KF 25/3	---	---	---	---	---		3162142000
300	KF 25/3	KF 25/3	---	---	---	---		3162242101
300	KF 25/3	KF 25/3	---	KF 25/3 (15°)	---	---		3162342101
300	KF40/3	KF25/3	KF 25/3	KF 25/3 (15°)	KF 25/3	---		3162552110
300	NS 45R*	NS 45R*	---	NS 29R*	---	---		3162328120
300	NS 45R*	NS 45R*	NS 29R*	NS 29R*	---	---		3162428120
300	NS 45R*	NS 45R*	NS 29R*	NS 29R*	NS 29R*	---		3162528120

DN	Center neck	Side neck 1:30 vertical	Side neck 3:00 15° angled	Side neck 6:00 20° angled	Side neck 9:00 vertical	Side neck 10:30 vertical	Side neck 12:00 vertical	Purchase no. high form
300	NS 45R*	---	NS 45R*	LF 100	NS 29R*	NS 29R*	NS 29R*	3162628120
300	NS 45R*	NS 29R*	NS 45R*	LF 100	NS 29R*	NS 29R*	NS 29R*	3162728120

DN	Center neck	Side neck 1:30 vertical	Side neck 3:00 15° angled	Side neck 6:00 20° angled	Side neck 9:00 vertical	Side neck 10:30 vertical	Side neck 12:00 vertical	Purchase no. high form
300	NS 45R*	---	NS 45R*	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162628322
300	KF 40/3	---	NS 45R*	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162658322
300	NS 45R*	NS 29R*	NS 45R*	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162728322
300	KF 40/3	NS 29R*	NS 45R*	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162758322
300	KF 40/3	---	KF 40/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162652320
300	KF 40/3	---	KF 40/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162652321
300	KF 40/3	---	KF 50/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162652340
300	KF 40/3	---	KF 50/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162652341
300	KF 40/3	KF 15/3	KF 40/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162752320
300	KF 40/3	KF 25/3	KF 40/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162752321
300	KF 40/3	KF 15/3	KF 50/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162752340
300	KF 40/3	KF 25/3	KF 50/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162752341
300	KF 40/3	KF 25/3	KF 50/2	LF 100***	KF 40/2	KF 25/3	KF 40/2	3162752342

S-Form, vertical

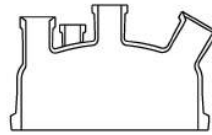
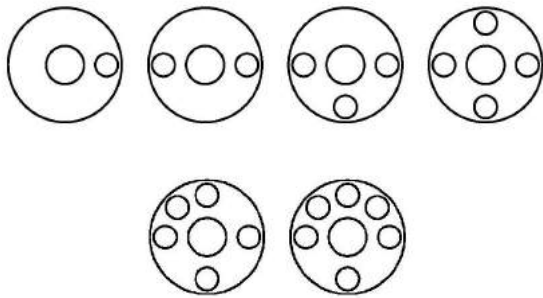
300	NS 45R*	---	S 64 Rot.**	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162622542
300	NS 45R*	NS 29R*	S 64 Rot.**	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162722542
300	KF 40/3	---	S 64 Rot.**	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162652542
300	KF 40/3	NS 29R*	S 64 Rot.**	LF 100***	NS 29R*	NS 29R*	NS 45R*	3162752542
300	KF 40/3	---	KF40/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162652520
300	KF 40/3	---	KF40/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162652521
300	KF 40/3	---	KF50/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162652540
300	KF 40/3	---	KF50/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162652541
300	KF 40/3	KF 15/3	KF40/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162752520
300	KF 40/3	KF 25/3	KF40/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162752521
300	KF 40/3	KF 15/3	KF50/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3162752540
300	KF 40/3	KF 25/3	KF50/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3162752541
300	KF 40/3	KF 25/3	KF50/2 S****	LF 100***	KF 40/2	KF 25/3	KF 40/2	3162752542

*R = Rodaviss (Socket with screw thread and lock nut) **Rot
 ***LF = Laboratory flange with 45° shoulder

**Rot = Rotulex (ungrinded spherical joint, with O-ring seal)
 S**** S form, vertical, = offset axes.

Lid adapter KF 400

Technical flange DN 400



mounting dimensions	height
center neck KF 15/3	220 mm
center neck KF 25/3	230 mm
center neck KF 40/3	250 mm
center neck KF 80/3	250 mm
side neck straight KF 15	185 mm
side neck straight KF 25	200 mm
side neck straight KF 40	225 mm
side neck straight KF 80	235 mm

DN	Center neck	Side neck 3:00 15° angled	Side neck 6:00 15° angled	Side neck 9:00 15° angled	Side neck 12:00 vertical	Purchase no. high form
400	KF 25/3	- - -	- - -	- - -	- - -	3172142000
400	KF 25/3	KF 25/3	- - -	- - -	- - -	3172242101
400	KF 25/3	KF 25/3	- - -	KF 25/3	- - -	3172342101
400	KF40/3	KF25/3	KF 25/3	KF 25/3	KF 25/3	3172452110

DN	Center neck	Side neck 1:30 straight	Side neck 3:00 30° angled	Side neck 6:00 20° angled	Side neck 9:00 vertical	Side neck 10:30 vertical	Side neck 12:00 vertical	Purchase no. high form
400	KF 40/3	- - -	KF 50/2	LF 120***	KF 15/3	KF 15/3	KF 40/2	3172652340
400	KF 40/3	- - -	KF 50/2	LF 120***	KF 25/3	KF 25/3	KF 40/2	3172652341
400	KF 40/3	KF 15/3	KF 50/2	LF 120***	KF 15/3	KF 15/3	KF 40/2	3172752340
400	KF 40/3	KF 25/3	KF 50/2	LF 120***	KF 25/3	KF 25/3	KF 40/2	3172752341
400	KF 40/3	KF 25/3	KF 50/2	LF 120***	KF 40/2	KF 25/3	KF 40/2	3172752342
400	KF 80/3	- - -	KF 50/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172672340
400	KF 80/3	- - -	KF 50/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172672341
400	KF 80/3	- - -	KF 80/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172672360
400	KF 80/3	- - -	KF 80/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172672361
400	KF 80/3	KF 15/3	KF 50/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172772340
400	KF 80/3	KF 25/3	KF 50/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172772341
400	KF 80/3	KF 25/3	KF 50/2	LF 100***	KF 40/2	KF 25/3	KF 40/2	3172772342
400	KF 80/3	KF 15/3	KF 80/2	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172772360
400	KF 80/3	KF 25/3	KF 80/2	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172772361
400	KF 80/3	KF 25/3	KF 80/2	LF 100***	KF 40/2	KF 25/3	KF 40/2	3172772362

S-Form, Vertical

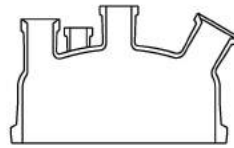
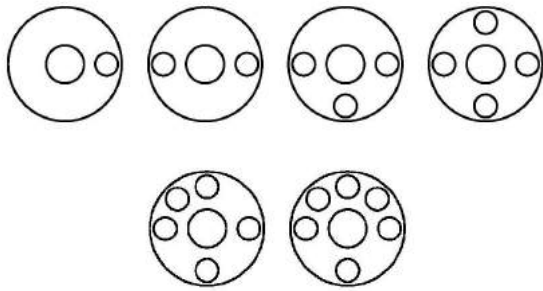
400	KF 40/3	- - -	KF 50/2 S****	LF 120***	KF 15/3	KF 15/3	KF 40/2	3172652540
400	KF 40/3	- - -	KF 50/2 S****	LF 120***	KF 25/3	KF 25/3	KF 40/2	3172652541
400	KF 40/3	KF 15/3	KF 50/2 S****	LF 120***	KF 15/3	KF 15/3	KF 40/2	3172752540
400	KF 40/3	KF 25/3	KF 50/2 S****	LF 120***	KF 25/3	KF 25/3	KF 40/2	3172752541
400	KF 40/3	KF 25/3	KF 50/2 S****	LF 120***	KF 40/2	KF 25/3	KF 40/2	3172752542
400	KF 80/3	- - -	KF 50/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172672540
400	KF 80/3	- - -	KF 50/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172672541
400	KF 80/3	- - -	KF 80/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172672560
400	KF 80/3	- - -	KF 80/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172672561
400	KF 80/3	KF 15/3	KF 50/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172772540
400	KF 80/3	KF 25/3	KF 50/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172772541
400	KF 80/3	KF 25/3	KF 50/2 S****	LF 100***	KF 40/2	KF 25/3	KF 40/2	3172772542
400	KF 80/3	KF 15/3	KF 80/2 S****	LF 100***	KF 15/3	KF 15/3	KF 40/2	3172772560
400	KF 80/3	KF 25/3	KF 80/2 S****	LF 100***	KF 25/3	KF 25/3	KF 40/2	3172772561
400	KF 80/3	KF 25/3	KF 80/2 S****	LF 100***	KF 40/2	KF 25/3	KF 40/2	3172772562

*R = Rodaviss (Socket with screw thread and lock nut) **Rot
 ***LF = Laboratory flange with 45° shoulder

**Rot = Rotulex (ungrinded spherical joint, with O-ring seal)
 S**** S form, vertical, = offset axes.

Lid adapter KF 450

Technical flange DN 450



mounting dimensions	height
center neck KF 25/3	225 mm
center neck KF 40/3	235 mm
center neck KF 80/3	235 mm
side neck straight KF 15	180 mm
side neck straight KF 25	190 mm
side neck straight KF 40	210 mm
side neck straight KF 80	225 mm

DN	Center neck	Side neck 3:00 15° angled	Side neck 6:00 15° angled	Side neck 9:00 15° angled	Side neck 12:00 straight	Purchase no. high form
450	KF 25/3	---	---	---	---	3182142000
450	KF 25/3	KF 25/3	---	---	---	3182242101
450	KF 25/3	KF 25/3	---	KF 25/3	---	3182342101
450	KF40/3	KF25/3	KF 25/3	KF 25/3	KF 25/3	3182452110

DN	Center neck	Side neck 1:30 straight	Side neck 3:00 30° angled	Side neck 6:00 20° angled	Side neck 9:00 vertical	Side neck 10:30 vertical	Side neck 12:00 vertical	Purchase no. high form
450	KF 80/3	---	KF 50/2	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182672340
450	KF 80/3	---	KF 50/2	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182672341
450	KF 80/3	---	KF 80/2	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182672360
450	KF 80/3	---	KF 80/2	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182672361
450	KF 80/3	KF 15/3	KF 50/2	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182772340
450	KF 80/3	KF 25/3	KF 50/2	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182772341
450	KF 80/3	KF 25/3	KF 50/2	LF 120***	KF 40/2	KF 25/3	KF 40/2	3182772342
450	KF 80/3	KF 15/3	KF 80/2	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182772360
450	KF 80/3	KF 25/3	KF 80/2	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182772361
450	KF 80/3	KF 25/3	KF 80/2	LF 120***	KF 40/2	KF 25/3	KF 40/2	3182772362

S-Form, Vertical

450	KF 80/3	---	KF 50/2 S****	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182672540
450	KF 80/3	---	KF 50/2 S****	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182672541
450	KF 80/3	---	KF 80/2 S****	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182672560
450	KF 80/3	---	KF 80/2 S****	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182672561
450	KF 80/3	KF 15/3	KF 50/2 S****	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182772540
450	KF 80/3	KF 25/3	KF 50/2 S****	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182772541
450	KF 80/3	KF 25/3	KF 50/2 S****	LF 120***	KF 40/2	KF 25/3	KF 40/2	3182772542
450	KF 80/3	KF 15/3	KF 80/2 S****	LF 120***	KF 15/3	KF 15/3	KF 40/2	3182772560
450	KF 80/3	KF 25/3	KF 80/2 S****	LF 120***	KF 25/3	KF 25/3	KF 40/2	3182772561
450	KF 80/3	KF 25/3	KF 80/2 S****	LF 120***	KF 40/2	KF 25/3	KF 40/2	3182772562

*R = Rodaviss (Socket with screw thread and lock nut) **Rot
 ***LF = Laboratory flange with 45° shoulder

**Rot = Rotulex (ungrinded spherical joint, with O-ring seal)
 S**** S form, vertical, = offset axes.

Tension braces and auxiliaries



Quick release clamps

with
tension spring
purchase number

DN	
60	S 003 01
100	S 003 02
120	S 003 03
150	S 003 04
200	S 003 05

This spring gives the guaranty that the flange is tight every time and that the ends don't break out.



Tension braces made of glass fiber for carrying the vessels fitted with lab flange

DN	purchase number
60	S 002 11
100	S 002 12
120	S 002 13
150	S 002 14

Stainless steel made tension braces

DN	purchase number
60	S 002 31
100	S 002 32
120	S 002 33
150	S 002 34
200	S 002 35

Tension braces made of stainless steel

DN	purchase number
60	S 002 41
100	S 002 42
120	S 002 43
150	S 002 44



O-rings for lab flanges made of

Silicon

Viton

Silicone,
seamless jacketed
with FEP

DN	Silicon	Viton	Silicone, seamless jacketed with FEP
15			F29 225 15
25			F29 225 25
60	S29 225 34	V29 225 34	F29 225 34
100	S29 225 46	V29 225 46	F29 225 46
120	S29 225 51	V29 225 51	F29 225 51
150	S29 225 57	V29 225 57	F29 225 57
200	S29 225 61	V29 225 61	F29 225 61



Tension braces for Tech flanges

Screws and nuts made of stainless steel = ESVER

Screws made of stainless steel with additional
compression springs = FSVER

PTFE

DN	made of plastic	made of metal	Collar joint	PTFE
15	FSVER 15K	FSVER 15S		SDICH 15T
25	FSVER 25K	FSVER 25S		SDICH 25T
40	FSVER 40K	FSVER 40S		SDICH 40T
50	FSVER 50K	FSVER 50S		SDICH 50T
80	FSVER 80K	FSVER 80S		SDICH 80T
100	FSVER 100K	FSVER 100S		SDICH 100T
150	FSVER 150K	FSVER 150S		SDICH 150T
200	FSVER 200K	FSVER 200S		SDICH 200T
300	FSVER 300K	FSVER 300S		SDICH 300T



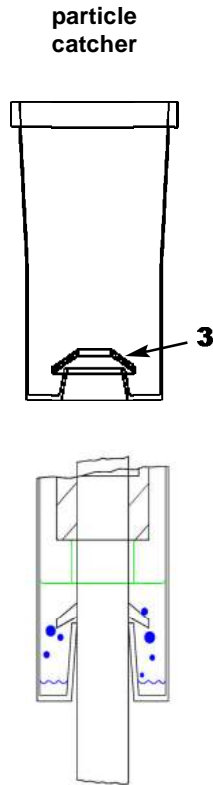
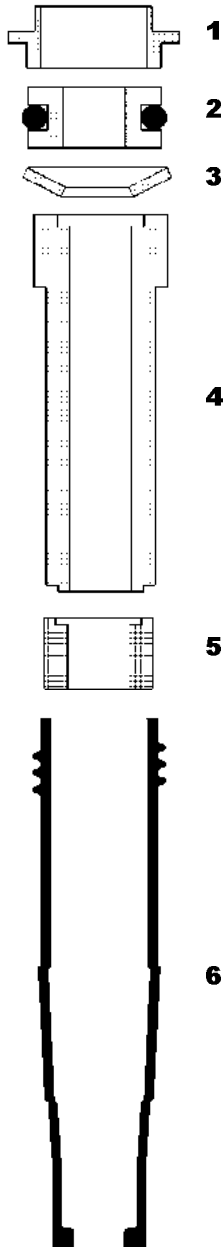
Our initiative for lower costs: stirring lock for lab agitators

laboratory stir-
ring lock



Universal stirring lock with outstanding features as follows:

- The sealings are not simultaneously as bearings, this enables a longer service life
- The sealings can be readjusted
- The individual bearing components are interchangeable
- The bearing distance is very big, this ensures a good guidance
- The lower bearing is led deep into the standard ground joint, this shortens the lever action of the agitator



NS	agitator ø	laboratory stirring lock purchase no.	particle catcher purchase no.
29,2/32	8mm	30 811 23	30 812 23
29,2/32	10mm	30 811 25	30 812 25

Spare parts:

1 Pressure component

29,2/32	8mm	30 811 56
29,2/32	10mm	30 811 61
45/40	10mm	30 811 71
45/40	13mm	30 811 76
45/40	16mm	30 811 81

2 Upper shaft bearings, complete with Viton O-ring in a set

29,2/32	8mm	30 811 57
29,2/32	10mm	30 811 62
45/40	10mm	30 811 72
45/40	13mm	30 811 77
45/40	16mm	30 811 82

3 sets of sealings containing 3 sealings each particle catcher

29,2/32	8mm	30 811 68	30 812 68
29,2/32	10mm	30 811 63	30 812 63
45/40	10mm	30 811 73	30 812 73
45/40	13mm	30 811 78	30 812 78
45/40	16mm	30 811 83	30 812 83

4 Spacer

29,2/32	8mm	30 811 59
29,2/32	10mm	30 811 64
45/40	10mm	30 811 74
45/40	13mm	30 811 79
45/40	16mm	30 811 84

5 Lower shaft bearing

29,2/32	8mm	30 811 60
29,2/32	10mm	30 811 65
45/40	10mm	30 811 75
45/40	13mm	30 811 80
45/40	16mm	30 811 85

6 Glass component separately

29,2/32	8-10mm	30 811 66
45/40	10-16mm	30 811 86



Magnetic coupling for stirrers 16 mm

DN	Nm	Art.no.
45	5,0	30 870 45
50	5,0	30 870 50
80	5,0	30 870 80
100	5,0	30 871 00
150	5,0	30 871 50

Product Touching Materials

PTFE
 Stainless Steel AISI 316 Ti
 Perfluorelastomere
 Graphite

Mechanical seal

DN	stirrer Ø	Art.no.
40	22	308814022
40	22	308814022-P
40	22	308814022-G
40	22	308814022-PTFE
40	22	308814022-PTFE-P
40	22	308814022-PTFE-G
80	40	308818040
80	40	308818040-P
80	40	308818040-G
80	40	308818040-PTFE
80	40	308818040-PTFE-P
80	40	308818040-PTFE-G



All mechanical seals have a double sealing system. So the sealing area is at one side sealed to the product area and at the other side to the bearing area. The sealing box is water cooled and can not be heated up from the room temperature or from the process temperature.

The Types P are pressure compensated in the sealing area

The Types G are gas washed in the sealing area.

All variants are also dry working with a limited rpm.

As barrier medium water and oils can be used.

Atex are in EXII 2 G c/k TX available. The product room anytime must be inertgas filled.

Product Touching Materials

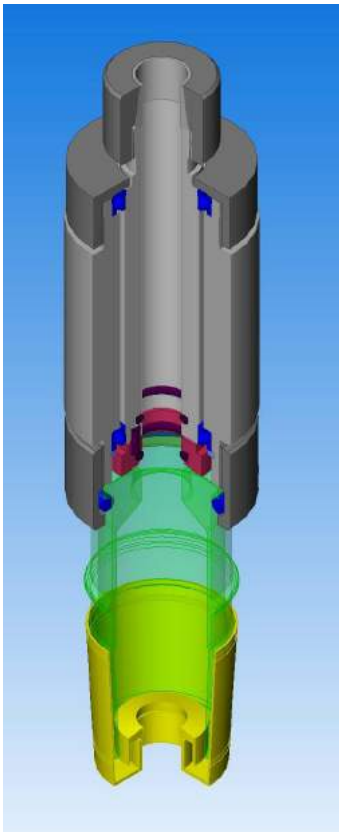
PTFE / PTFE-Graphite / PTFE-Carbon conductivity*

Aluminiumoxidceramic

Perfluorelastomere

FEP

* Atex Variant



Mechanical seal

drying working

product contact: Borosilicate glass; PTFE; PTFE-graphite compound 85:15.

Particle catcher

Provided for vacuum down to 1 mbar

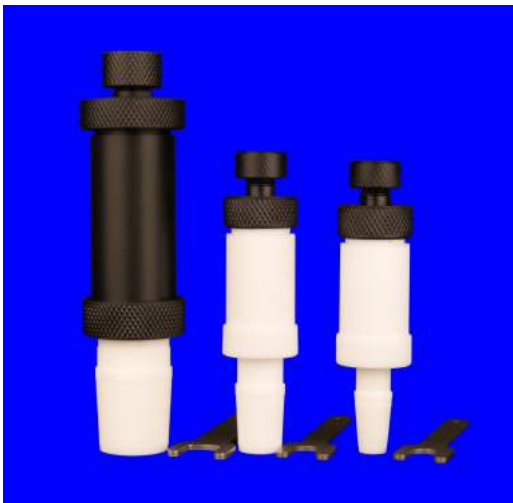
Bearing: SS ball bearing

height: from socket to the end: 200 mm

NS	for stirrer Ø	mounting length	Purchase no.
NS 14	8 mm	86 mm	308831408
NS 19	8 mm	86 mm	308831908
NS 24	10 mm	120 mm	308832410
NS 29	10 mm	120 mm	308832910
NS 45	10 mm	120 mm	308834510
KF 25/3	16 mm	137 mm	308832510
NS 45	16 mm	190 mm	308824516
NS 45	16 mm	210 mm	308824516T*
KF 25/3	16 mm	200 mm	308822516
KF 40/3	16 mm	180 mm	308824016SS

The types 30883 ... are provided with NS grind joint made of PTFE. The types 30882 ... are provided with grind joint made of borosilicate glass. The status ring is direct on top of the glass part.

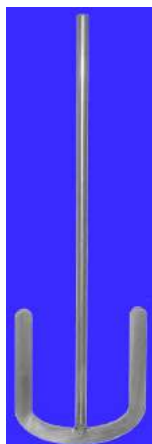
* The grind joint is thermostated. So it is possible to take the process heat direct at the status disc out of the seal.



Diehm special reversal stirrer

Specific for the low viscous liquids. The best stirring effects are achieved with special turbulence disturbing ribs in the vessel

reactors	shaft			E-CTFC	PTFE	PTFE-ceramic
DN	Ø mm	glass	SS AISI 316L	coated	jacked	coated
60	10	30 900 11	30 901 11	30 902 11	30 903 11	30 904 11
100	10	30 900 12	30 901 12	30 902 12	30 903 12	30 904 12
120	10	30 900 13	30 901 13	30 902 13	30 903 13	30 904 13
150	10	30 900 14	30 901 14	30 902 14	30 903 14	30 904 14
120	16	30 900 23	30 901 23	30 902 23	30 903 23	30 904 23
150	16	30 900 24	30 901 24	30 902 24	30 903 24	30 904 24
200	16	30 900 25	30 901 25	30 902 25	30 903 25	30 904 25
300	16	30 900 26	30 901 26	30 902 26	30 903 26	30 904 26
200	22	30900A45	30901A45	30902A45	30903A45	30904A45
300	22	30900A46	30901A46	30902A46	30903A46	30904A46
300	40	30900A66	30901A66	30902A66	30903A66	30904A66
400	40	30900A67	30901A67	30902A67	30903A67	30904A67



Anchor stirrer

reactors DN	shaft Ø mm	glass	SS AISI 316L	E-CTFC coated	PTFE jacked	PTFE-ceramic coated
60	10	30 905 11	30 906 11	30 907 11	30 908 11	30 909 11
100	10	30 905 12	30 906 12	30 907 12	30 908 12	30 909 12
120	10	30 905 13	30 906 13	30 907 13	30 908 13	30 909 13
150	10	30 905 14	30 906 14	30 907 14	30 908 14	30 909 14
120	16	30 905 23	30 906 23	30 907 23	30 908 23	30 909 23
150	16	30 905 24	30 906 24	30 907 24	30 908 24	30 909 24
200	16	30 905 25	30 906 25	30 907 25	30 908 25	30 909 25
300	16	30 905 26	30 906 26	30 907 26	30 908 26	30 909 26
200	22	30905A45	30906A45	30907A45	30908A45	30909A45
300	22	30905A46	30906A46	30907A46	30908A46	30909A46
300	40	30905A66	30906A66	30907A66	30908A66	30909A66
400	40	30905A67	30906A67	30907A67	30908A67	30909A67

The total length of a stirrer is the length of the stirrer without the connection part for the coupling.
The coupling end of the stirrer can be 8 and 10 mm for the 10 mm stirrers or 14 and 16 mm for the 16 mm stirrers.

This coupling end is any time 40 mm long and is not integrated in the stirrer length.

So a ordered stirrer with a length of 500 mm has a totaly length of 540 mm.

Larger stirrers 20/22 mm and 40 mm didn't use such coupling ends, because this stirreres have a special conical end to connect the stirrers to the DIEHM mechanical seal DN 40 or DN 80.

We deliver the stirrers in a 20 mm length steps.

For a higher charge we deliver also stirrers in a special length. The length and the diameter of the coupling end will be adapted to the length of the stirrer.

Example:

A stirrer with a diameter of 16 mm for DN 200 made of SS, a stirrer length of 580 mm and coupling end of 16 mm dia has a total length of 620 mm and the order no. **3090125580.16**.

The same stirrer but with 22 mm dia and a total length of 690 mm and the order no. **3090145A580** and with a dia. of 22 mm a total length of 700 mm and the order no. **3090165A580**.

Stirring couplings

between stirrer and stirring motor

coupling with torsional spring



stirrer Ø		Art.No.	Inlet Set
10 mm	8 mm	30 842 05	30 842 051
10 mm	10 mm	30 842 06	30 842 061
16 mm	14 mm	30 842 07	30 842 071
16 mm	16 mm	30 842 08	30 842 081



Coupling with cardan drive

10 mm	8 mm	30 842 15	30 842 151
10 mm	10 mm	30 842 16	30 842 161
16 mm	14 mm	30 842 17	30 842 171
16 mm	16 mm	30 842 18	30 842 181



Clamping coupling with double cardan special for glass stirrers

10 mm	8 mm	30 842 25
10 mm	10 mm	30 842 26
16 mm	14 mm	30 842 27
16 mm	16 mm	30 842 28



Clamping coupling with double cardan special for stainless steel stirrersrs

10 mm	8 mm	30 842 35
10 mm	10 mm	30 842 36
16 mm	14 mm	30 842 37
16 mm	16 mm	30 842 38

PT 100 Sensors for reactors

Article numbers



Mounting length	NS	KF	with PT 100 Sensors and Lemo - coupling		buffle without PT	
			straight	offset axes	straight	offset axes
170	14,5/23		30 920 1170-X	30 923 1170-X (5°)	30 920 1170-0	30 923 1170-0 (5°)
220	14,5/23		30 920 1220-X	30 923 1220-X (5°)	30 920 5220-0	30 923 1220-0 (5°)
290	14,5/23		30 920 1290-X	30 923 1290-X (5°)	30 920 1290-0	30 923 1290-0 (5°)
260	29,2/32		30 920 3260-X	30 923 3260-X	30 920 3260-0	30 923 3260-0
280	29,2/32		30 920 3280-X	30 923 3280-X	30 920 3280-0	30 923 3280-0
290	29,2/32		30 920 3290-X	30 923 3290-X	30 920 3290-0	30 923 3290-0
330	29,2/32		30 920 3330-X	30 923 3330-X	30 920 3330-0	30 923 3330-0
340	29,2/32		30 920 3340-X	30 923 3340-X	30 920 3340-0	30 923 3340-0
345	29,2/32		30 920 3345-X	30 923 3345-X	30 920 3345-0	30 923 3345-0
350	29,2/32		30 920 3350-X	30 923 3350-X	30 920 3350-0	30 923 3350-0
400	29,2/32		30 920 3400-X	30 923 3400-X	30 920 3400-0	30 923 3400-0
410	29,2/32		30 920 3410-X	30 923 3410-X	30 920 3410-0	30 923 3410-0
420	29,2/32		30 920 3420-X	30 923 3420-X	30 920 3420-0	30 923 3420-0
430	29,2/32		30 920 3430-X	30 923 3430-X	30 920 3430-0	30 923 3430-0
450	29,2/32		30 920 3450-X	30 923 3450-X	30 920 3450-0	30 923 3450-0
470	29,2/32		30 920 3470-X	30 923 3470-X	30 920 3470-0	30 923 3470-0
500	29,2/32		30 920 3500-X	30 923 3500-X	30 920 3500-0	30 923 3500-0
510	29,2/32		30 920 3510-X	30 923 3510-X	30 920 3510-0	30 923 3510-0
520	29,2/32		30 920 3520-X	30 923 3520-X	30 920 3520-0	30 923 3520-0
550	29,2/32		30 920 3550-X	30 923 3550-X	30 920 3550-0	30 923 3550-0
640	29,2/32		30 920 3640-X	30 923 3640-X	30 920 3640-0	30 923 3640-0
700	29,2/32		30 920 3700-X	30 923 3700-X	30 920 3700-0	30 923 3700-0
640		40/1	30 920 7640-X	30 923 7640-X	30 920 7640-0	30 923 7640-0
670		40/1	30 920 7670-X	30 923 7670-X	30 920 7670-0	30 923 7670-0
680		40/1	30 920 7680-X	30 923 7680-X	30 920 7680-0	30 923 7680-0
710		40/1	30 920 7710-X	30 923 7710-X	30 920 7710-0	30 923 7710-0
720		40/1	30 920 7720-X	30 923 7720-X	30 920 7720-0	30 923 7720-0
780		40/1	30 920 7780-X	30 923 7780-X	30 920 7780-0	30 923 7780-0
910		40/1	30 920 7910-X	30 923 7910-X	30 920 7910-0	30 923 7910-0
930		40/1	30 920 7930-X	30 923 7930-X	30 920 7930-0	30 923 7930-0
960		40/1	30 920 7960-X	30 923 7960-X	30 920 7960-0	30 923 7960-0

Explanation of the Article number

Type	NS/KF	Length	Numbers of Pt
30 920	1	260	-1
30 923	8	960	-2

- X means 1 or 2 for the numbers of sensors
- 1 equipped with one Pt 100, 3 m cable and Lemo plug S1.
- 2 equipped with two Pt 100, one with 3 m cable and Lemo plugg S1, the second with Lemo coupling S0 direct at the probe.

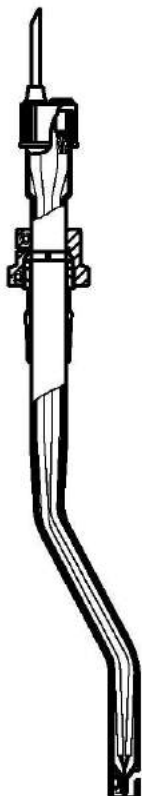
Other mounting lengths are possible.

Connecting cable

Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	2 m	6014020111
Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	3 m	6014030111

PT 100 Adjustable Sensors for reactors with PTFE clamping joint

It is possible to adjust the sensor in the height and the position.
The clamping zone of the stirrer has a diameter of 22 mm.



Mounting length	Article numbers	
	straight	offset axes
400	309200400-X	309230400-X
430	309200430-X	309230430-X
480	309200480-X	309230480-X
530	309200530-X	309230530-X
570	309200570-X	309230570-X
580	309200580-X	309230580-X
720	309200720-X	309230720-X

Explanation of the Article number

Type	NS/KF	Length	Numbers of Pt
30 920	0	260	-1
30 923	0	960	-2

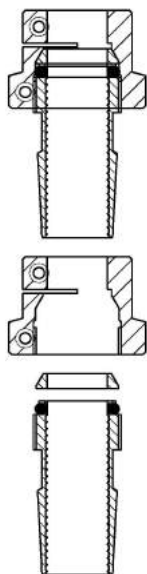
- X means 1 or 2 for the numbers of sensors
- 1 equipped with one Pt 100, 3 m cable and Lemo plug S1.
- 2 equipped with two Pt 100, one with 3 m cable and Lemo plugg S1, the second with Lemo coupling S0 direct at the probe.

Other mounting lengths are possible.

Connecting cable

Art. No.

Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	2 m	6014020111
Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	3 m	6014030111

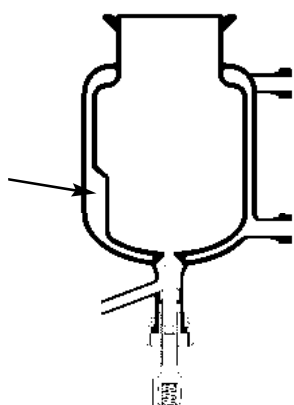


NS clamping connector

To assemble the sensor leak tight to the NS 29 cone joint
To use only with Rodaviss Socket.

Art. No.

Clamping bush NS 29 for pipes 22 mm complete	188602922S
Spares:	
Fixing nut	188602922S.002
clamping ring	188602922.007
NS 29 PTFE-part only	188602922.001



Baffles

To prevent liquid to rotate in the vessel, it is possible to make bursting ribs in the inside of the reactor. At using a DIEHM special reversal stirrer or a impeller stirrer a baffle is to use. It can be such a rib or a sensor, mounted as baffle.



4 wire PT 100 sensors

length	for GL18 with cable and Lemo plug	for GL18 with Lemo coupling	NS14 with cable and Lemo plug	NS14 with Lemo coupling	KF15/1 with cable and Lemo plug	KF15/1 with Lemo coupling
	65	61 101 065	61 102 065	61 111 065	61 112 065	61 121 065
85	61 101 085	61 102 085	61 111 085	61 112 085	61 121 085	61 122 085
100	61 101 100	61 102 100	61 111 100	61 112 100	61 121 100	61 122 100
125	61 101 125	61 102 125	61 111 125	61 112 125	61 121 125	61 122 125
150	61 101 150	61 102 150	61 111 150	61 112 150	61 121 150	61 122 150
200	61 101 200	61 102 200	61 111 200	61 112 200	61 121 200	61 122 200
250	61 101 250	61 102 250	61 111 250	61 112 250	61 121 250	61 122 250
300	61 101 300	61 102 300	61 111 300	61 112 300	61 121 300	61 122 300



Thermometer tube for thermometers oder PT 100 sensors

length	NS 14	NS 29	KF 15/1	KF 15/3	KF 25/1	KF 25/3
65	61 201 065	61 202 065	61 211 065	61 212 065	61 221 065	61 222 065
85	61 201 085	61 202 085	61 211 085	61 212 085	61 221 085	61 222 085
100	61 201 100	61 202 100	61 211 100	61 212 100	61 221 100	61 222 100
125	61 201 125	61 202 125	61 211 125	61 212 125	61 221 125	61 222 125
150	61 201 150	61 202 150	61 211 150	61 212 150	61 221 150	61 222 150
200	61 201 200	61 202 200	61 211 200	61 212 200	61 221 200	61 222 200
250	61 201 250	61 202 250	61 211 250	61 212 250	61 221 250	61 222 250
300	61 201 300	61 202 300	61 211 300	61 212 300	61 221 300	61 222 300



Hoseconnections

	außen ø	innen ø			Art. No.
SHoseconnection PP	8mm	4mm	bent	for GL 14	18 830OPPB1408
SHoseconnection PP	9mm	5mm	straight	for GL 14	18 830OPPG1409
SHoseconnection PFA	9mm	5mm	bent	for GL 14	18 830OPFB1408
SHoseconnection PFA	9mm	5mm	straight	for GL 14	18 830OPFG1409
SHoseconnection PP	10mm	7mm	bent	for GL 18	18 830OPPB1810
SHoseconnection PP	10mm	7mm	straight	for GL 18	18 830OPPG1810
SHoseconnection PFA	10mm	7mm	bent	for GL 18	18 830OPFB1810
SHoseconnection PFA	10mm	7mm	straight	for GL 18	18 830OPFG1810
SHoseconnection PP	16mm	10mm	straight	for GL 25	18 830OPPG2516
SHoseconnection PFA	16mm	10mm	straight	for GL 25	18 830OPFG2516
SHoseconnection PFA	21mm	10mm	straight	for GL 32	18 830OPFG3221
Schlaucholive Edelstahl	10mm	7mm	straight	for GL 18	18 830OSSG1810
Schlaucholive Edelstahl	12mm	10mm	straight	for GL 18	18 830OSSG1812

Metal plane flange connections



Plane flange DN 15 and DN 25 with inner thread 1/2" to connect adapters and sensors to glass flanges.

	Art. No.
Plane flange KF 15 - 1/2 " Inner thread	18 832 31
Plane flange KF 25 - 1/2 " Inner thread	18 832 32
Plane flange KF 15 Swagelok i.Ø 3 mm	18 833 03
Plane flange KF 15 Swagelok i.Ø 1/8 "	18 833 1/8
Plane flange KF 15 Swagelok i.Ø 4 mm	18 833 04
Plane flange KF 15 Swagelok i.Ø 5 mm	18 833 05
Plane flange KF 15 Swagelok i.Ø 6 mm	18 833 06
Plane flange KF 15 Swagelok i.Ø 1/4 "	18 833 1/4
Plane flange KF 15 Swagelok i.Ø 8 mm	18 833 08
Plane flange KF 15 Swagelok i.Ø 10 mm	18 833 10
Plane flange KF 15 Swagelok i.Ø 12 mm	18 833 12

Metal plane flange connections

Art. No.



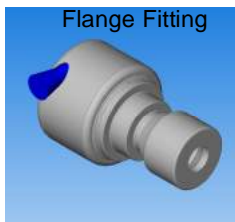
Plane flange DN 15 and DN 25 with Swagelok hose fittings for stainless steel tubes or PTFE-hoses from 3 to 12 mm or from 1/8" to 3/8"

Plane flange KF 25 Swagelok i.Ø 3 mm	18 834 03
Plane flange KF 25 Swagelok i.Ø 1/8 "	18 834 1/8
Plane flange KF 25 Swagelok i.Ø 4 mm	18 834 04
Plane flange KF 25 Swagelok i.Ø 5 mm	18 834 05
Plane flange KF 25 Swagelok i.Ø 6 mm	18 834 06
Plane flange KF 25 Swagelok i.Ø 1/4 "	18 834 1/4
Plane flange KF 25 Swagelok i.Ø 8 mm	18 834 08
Plane flange KF 25 Swagelok i.Ø 10 mm	18 834 10
Plane flange KF 25 Swagelok i.Ø 12 mm	18 834 12
Plane flange KF 25 Swagelok i.Ø 3/8 "	18 834 3/8

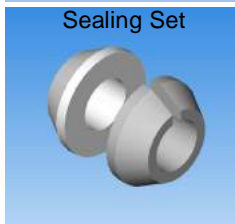
For this fitting is a seal needed, as well as a Tension brace or a Tension brace.

SDICH 15T,
FSVER 15K
FSVER 15 SS

Flange Fitting



Flange Fitting



Sealing Set



O-Ring



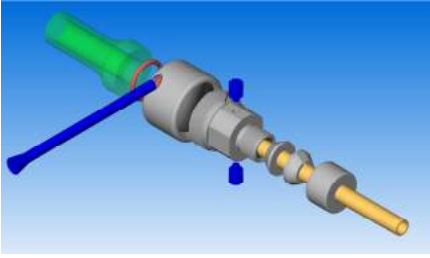
Supporting sleeve

Clamping connectors for plane flanges, product touching material PTFE, Fixing nut PVDF. Temperature range -40 - 150°C

The flange connector must be pushed on the flange, together with the O-ring seal. Then the spring is to push into the opening and to close the fixing nut. At the other end, push a hose, with the sealing set and the fixing nut into the opening and tighten the nut. A supporting sleeve support the hose at high temperatures above 100 ° C and prevent against out pulling the tube, but at the same time it acts as a constriction.

Type	DN	drill hole	Art. No.	
Flanschverbindung	15	6 - 10 mm	188501510I	
Dichtset	15	6 mm	188501506I.011	
Dichtset	15	8 mm	188501508I.011	
Dichtset	15	10 mm	188501510I.011	
Flanschverbindung	15	8 - 14 mm	188511514I	
Dichtset	15	8 mm	188511508I.011	
Dichtset	15	10 mm	188511510I.011	
Dichtset	15	12 mm	188511512I.011	
Dichtset	15	14 mm	188511514I.011	
Flanschverbindung	25	6 - 10 mm	188502510I	
Dichtset	25	6 mm	188501506I.011	
Dichtset	25	8 mm	188501508I.011	
Dichtset	25	10 mm	188501510I.011	
Flanschverbindun	25	8 - 14 mm	188512514I	
Dichtset	25	8 mm	188511508I.011	
Dichtset	25	10 mm	188511510I.011	
Dichtset	25	12 mm	188511512I.011	
Dichtset	25	14 mm	188511514I.011	
Flanschverbindung	25	16 - 24 mm	188522524I	
Dichtset	25	16 mm	188522516I.011	
Dichtset	25	18 mm	188522518I.011	
Dichtset	25	20 mm	188522520I.011	
Dichtset	25	22 mm	188522522I.011	
Dichtset	25	24 mm	188522524I.011	
Stützhülse	for hoses i. dia.	i. dia.	MOC	
Stützhülse	4 mm	2 mm	PFA	18850GL06.008
Stützhülse	6 mm	4 mm	PFA	18850PF08.008
Stützhülse	8 mm	6 mm	PFA	18850PF10.008
Stützhülse	10 mm	8 mm	PFA	18850PF12.008
Stützhülse	12 mm	10 mm	PFA	18850PF14.008
Stützhülse	14 mm	12 mm	PFA	18850PF16.008
Stützhülse	16 mm	14 mm	PFA	18850PF18.008
Stützhülse	18 mm	16 mm	Glas	18850GL20.008
Stützhülse	20 mm	18 mm	Glas	18850GL22.008
Stützhülse	22 mm	20 mm	Glas	18850GL24.008
O-Ring DN 15			FEP	F2922515
O-Ring DN 25			FEP	F2922525

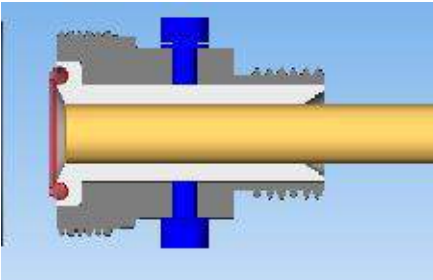
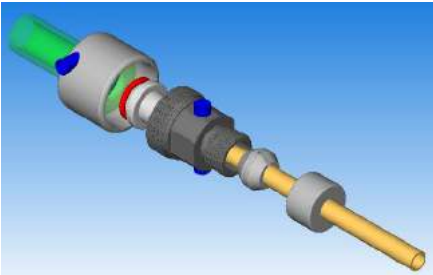
Flange Fitting for the flame proof area



These fittings are made of a conductive, carbon-PTFE compound. A grounding bolt allow to ground the part acc. to TRBS 2153

Type	DN	drill hole	Art. No.
Flanschverbindung	15	6 - 10 mm	188531510IS-PTFE
Dichtset	15	6 mm	188531506IS.011
Dichtset	15	8 mm	188531508IS.011
Dichtset	15	10 mm	188531510IS.011
Flanschverbindung	15	8 - 14 mm	188541514IS-PTFE
Dichtset	15	8 mm	188541508IS.011
Dichtset	15	10 mm	188541510IS.011
Dichtset	15	12 mm	188541512IS.011
Dichtset	15	14 mm	188541514IS.011

SS connectors MOC PTFE, acc. GMP and FDA.

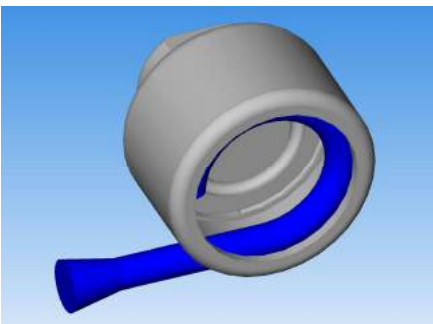


Flanschverbindung	15	6 mm	188531506IS-SS
Flanschverbindung	15	8 mm	188531508IS-SS
Flanschverbindung	15	10 mm	188531510IS-SS
Flanschverbindung	15	12 mm	188541512IS-SS
Flanschverbindung	15	14 mm	188541514IS-SS
Flanschverbindung	25	6 mm	188532506IS-SS
Flanschverbindung	25	8 mm	188532508IS-SS
Flanschverbindung	25	10 mm	188532510IS-SS
Flanschverbindung	25	12 mm	188542512IS-SS
Flanschverbindung	25	14 mm	188542514IS-SS
Flanschverbindung	25	16 mm	188542516IS-SS
Flanschverbindung	25	18 mm	188542518IS-SS
Flanschverbindung	25	20 mm	188542520IS-SS
Flanschverbindung	25	22 mm	188542522IS-SS
Flanschverbindung	25	24 mm	188542524IS-SS

O-Ring ausschließlich für Edelstahl - GMP Verbindungen

FEP ummantelter	15	F2922515IS
Silikon Ring	25	F2922525IS

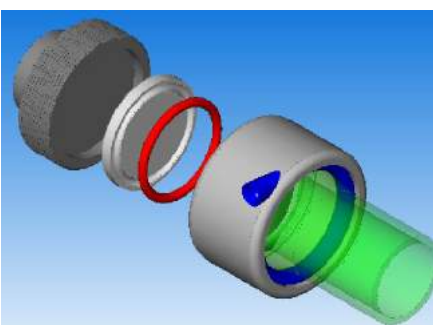
Blind cap, made of PTFE, with fixing nut made of PVDF



Blind caps, made of PTFE

Type	DN	Art. No.
Blindverschraubung	15	188501500
Dichtring	15	F2922515
Blindverschraubung	25	188502500
Dichtring	25	F2922525

Blind cap, made of SS, with sealing plate made of PTFE



SS blind caps for flame proof areas.

Type	DN	Art. No.
Blindverschraubung	15	188501500IS-SS
Dichtring	15	F2922515
Blindverschraubung	25	188502500IS-SS
Dichtring	25	F2922525
Blindverschraubung	40	188505000IS-SS
Dichtring	40	F29225.40x5.0
Blindverschraubung	50	188505000IS-SS
Dichtring	50	F29225.54x4.0
Blindverschraubung	80	188508000IS-SS
Dichtring	80	F29225.84x4.0

Hose connecting parts made of stainless steel



Metal hose connecting part DN 15 / M16x1,0 straight and quick-release lock



Metal hose connecting part DN 15 / M16x1,0 straight with Pt 100 adapter and quick release lock



Rubber hose connecting part DN 15 / 12 mm straight and quick release lock



Metal hose connecting part DN 25 / M30x1,5 90° and quick release lock



Metal hose connecting part DN 25 / M16x1,0 90° and quick release lock

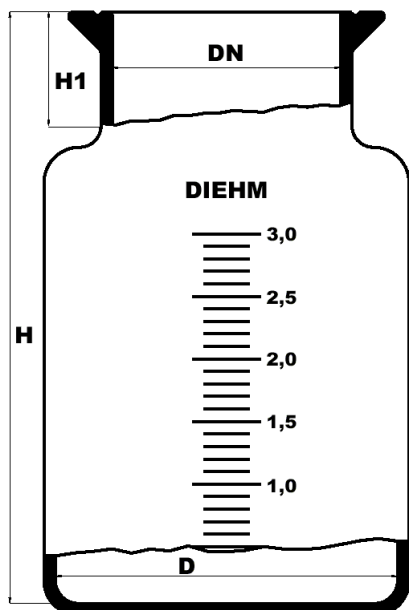


Metal hose connecting part DN 15 / M30x1,5 90° and quick release lock



Article	Article No.
Flange KF 15 screw M16x1 for metal hoses M 16 x 1	18 840 1516
Flange KF 15 screw M16x1 for metal hoses with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 1516
Flange KF15 hoseconnection 12mm, inner Ø 10 mm	18 840 1512
Flange KF 15 screw M16x1 for metal hoses, 90° curved	18 841 1516
Flange KF 15 screw M16x1 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 1516
Flange KF 15 screw M30x1,5 for metal hoses, 90° curved	18 841 1530
Flange KF 15 screw M30x1,5 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 1530
Flange KF 25 screw M16x1 for metal hoses, 90° curved	18 841 2516
Flange KF 25 screw M16x1 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 2516
Flange KF 25 screw M30x1,5 for metal hoses, 90° curved	18 841 2530
Flange KF 25 screw M30x1,5 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 2530
Pt 100 sensor 1/8" made of stainless steel with Lemo plug 4 Wire	61 130 01
Plane flange KF 15 - 1/2 "	18 832 31
Plane flange KF 25 - 1/2 "	18 832 32
Plane flange DN X curved, with end Y and tube for venting or for assembling of sensors. Standard with locking cap.	
KF 15...M16 x1	18 847 1516
KF 15...M19x1,5	18 847 1519
KF 15...M24x1,5	18 847 1524
KF 15...M30x1,5	18 847 1530
KF 25...M16x1	18 847 2516
KF 25...M19x1,5	18 847 2519
KF 25...M24x1,5	18 847 2524
KF 25...M30x1,5	18 847 2530
KF 25...M38x1,5	18 847 2538
Sealing set for sensors 6 mm	100BD639-54
Sealing set for sensors 8 mm	100BD639-62
Sealing set for sensors 10 mm	100BD639-74

Reaction vessels with flat bottom

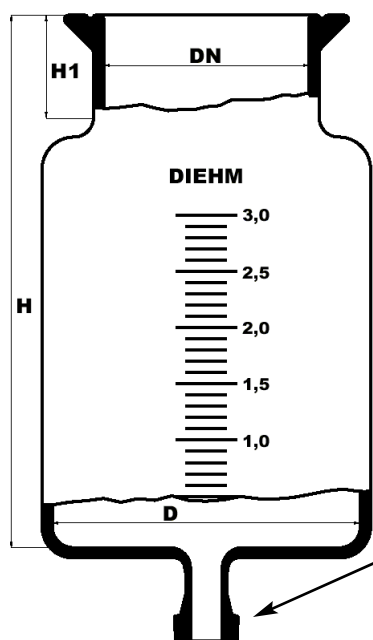


These vessels up to DN 200 are provided with a Schott laboratory flange with groove. Vessels DN 300 or larger are provided with a technical flange type Schott. Different flanges are also available

The circumference form depends on capacity. As shown on the graphic below

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0.1	60	65	105	50	33 000 02
0.25	60	65	150	50	33 000 04
0.5	60	65	220	50	33 000 08
0.25	100	100	115	50	33 000 06
0.5	100	100	145	50	33 000 10
1.0	100	100	210	50	33 000 13
2.0	100	100	340	50	33 000 18
3.0	100	150	275	50	33 000 24
4.0	100	150	330	50	33 000 30
50.0	100	400	595	100	33 000 96
1.0	120	120	180	60	33 000 15
2.0	120	120	270	60	33 000 19
3.0	120	120	360	60	33 000 25
4.0	120	180	300	60	33 000 35
5.0	120	180	345	60	33 000 43
6.0	120	190	360	60	33 000 52
10.0	120	240	345	60	33 000 59
1.0	150	150	140	50	33 000 16
2.0	150	150	195	50	33 000 21
3.0	150	150	255	50	33 000 27
4.0	150	150	310	50	33 000 33
5.0	150	180	335	50	33 000 45
6.0	150	190	350	50	33 000 54
10.0	150	240	335	50	33 000 64
50.0	150	400	595	100	33 000 97
4.0	200	200	270	70	33 000 39
5.0	200	200	315	70	33 000 48
6.0	200	200	350	70	33 000 57
10.0	200	240	355	70	33 000 66
15.0	200	240	465	70	33 000 75
20.0	200	260	510	70	33 000 84

Reaction vessels with flat bottom and bottom flange



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange typ Schott.

Different flanges are also available

The circumference form depends on capacity.
As shown on the graphic below

This type of vessel is provided with a bottom flange DN 15 plane type Schott.

Other flanges or screw connections are also available at no extra charge.

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0.1	60	65	105	50	33 007 02
0.25	60	65	150	50	33 007 04
0.5	60	65	220	50	33 007 08
0.25	100	100	115	50	33 007 06
0.5	100	100	145	50	33 007 10
1.0	100	100	210	50	33 007 13
2.0	100	100	340	50	33 007 18
3.0	100	150	275	50	33 007 24
4.0	100	150	330	50	33 007 30
50.0	100	400	595	100	33 007 96
1.0	120	120	180	60	33 007 15
2.0	120	120	270	60	33 007 19
3.0	120	120	360	60	33 007 25
4.0	120	180	300	60	33 007 35
5.0	120	180	345	60	33 007 43
6.0	120	190	360	60	33 007 52
10.0	120	240	345	60	33 007 59
1.0	150	150	140	50	33 007 16
2.0	150	150	195	50	33 007 21
3.0	150	150	255	50	33 007 27
4.0	150	150	310	50	33 007 33
5.0	150	180	335	50	33 007 45
6.0	150	190	350	50	33 007 54
10.0	150	240	335	50	33 007 64
4.0	200	200	270	70	33 007 39
5.0	200	200	315	70	33 007 48
6.0	200	200	350	70	33 007 57
10.0	200	240	355	70	33 007 66
15.0	200	240	465	70	33 007 75
20.0	200	260	510	70	33 007 84

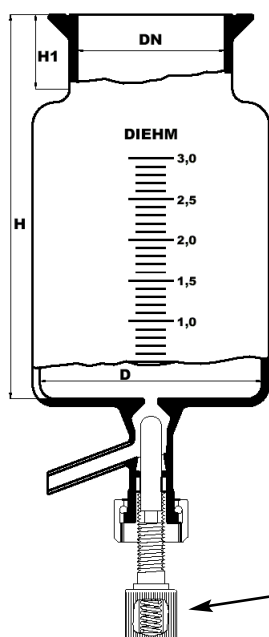
order number informations:

The order number will be with KF 15; GL 25; KS 35.... completed.

Example:

A reactor DN 100 with 1 litre capacity and a outflow flange KF 15 have the order number:
33 007 13 KF 15

Reaction vessel flat bottom with bottom valve



These vessels up to DN 200 are provided with a Schott laboratory flange with groove. Vessels DN 300 or larger are provided with a technical flange type Schott. Different flanges are also available

The circumference form depends on capacity. As shown on the graphic below

The valve is designed so that liquid rests flow through without leaving deposits acc. **GMP**. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction. As alternative option we have 3 different stoppers for example with Pt100 sensor.

All variations are available with pneumatic cylinders.

Cap. liters	DN mm	D mm	H mm	H1 mm	valve \varnothing mm	Art.no.
0.1	60	65	105	50	10	33 008 02
0.25	60	65	150	50	10	33 008 04
0.5	60	65	220	50	10	33 008 08
0.25	100	100	115	50	10	33 008 06
0.5	100	100	145	50	10	33 008 10
1.0	100	100	210	50	10	33 008 13
2.0	100	100	340	50	10	33 008 18
3.0	100	150	275	50	10	33 008 24
4.0	100	150	330	50	10	33 008 30
1.0	120	120	180	60	10	33 008 15
2.0	120	120	270	60	10	33 008 19
3.0	120	120	360	60	10	33 008 25
4.0	120	180	300	60	10	33 008 35
5.0	120	180	345	60	10	33 008 43
6.0	120	180	360	60	10	33 008 52
10.0	120	240	345	60	16	33 008 59
1.0	150	150	140	50	10	33 008 16
2.0	150	150	195	50	10	33 008 21
3.0	150	150	255	50	10	33 008 27
4.0	150	150	310	50	10	33 008 33
5.0	150	180	335	50	10	33 008 45
6.0	150	180	350	50	10	33 008 54
10.0	150	240	335	50	16	33 008 64
4.0	200	200	270	70	10	33 008 39
5.0	200	200	315	70	10	33 008 48
6.0	200	200	350	70	10	33 008 57
10.0	200	240	355	70	16	33 008 66
15.0	200	240	465	70	20	33 008 75
20.0	200	260	510	70	20	33 008 84

Order number informations:

The order number will at the end with V10...V25 (for the valve) and maybe GL 18... KF25 (for the relevant outflow) completed.

Reactors with a simple discharge pipe get the valve title only.

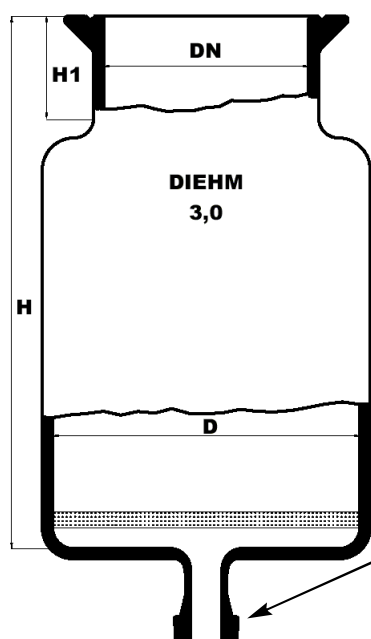
Example:

Reactor 1 litre DN 100 with 16 mm valve and GL 25 outflow.

Order number:

33 008 13 V 16 GL 25

Reaction vessel flat bottom with sinter plate and bottom flange



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.
Vessels DN 300 or larger are provided with a technical flange type Schott.
Different flanges are also available

The circumference form depends on capacity.
As shown on the graphic below

This type of vessel is provided with a bottom flange DN 15 plane type Schott
Other flanges or screw connections are also available at no extra charge.

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0.1	60	65	105	50	33 009 02
0.25	60	65	150	50	33 009 04
0.5	60	65	220	50	33 009 08
0.25	100	100	115	50	33 009 06
0.5	100	100	145	50	33 009 10
1.0	100	100	210	50	33 009 13
2.0	100	100	340	50	33 009 18
3.0	100	150	240	50	33 009 24
4.0	100	150	330	50	33 009 30
1.0	120	120	180	60	33 009 15
2.0	120	120	270	60	33 009 19
3.0	120	120	360	60	33 009 25
4.0	120	180	300	60	33 009 35
5.0	120	180	345	60	33 009 43
6.0	120	180	380	60	33 009 52
1.0	150	150	140	50	33 009 16
2.0	150	150	195	50	33 009 21
3.0	150	150	255	50	33 009 27
4.0	150	150	310	50	33 009 33
5.0	150	180	335	50	33 009 45
6.0	150	180	380	60	33 009 54
4.0	200	200	270	70	33 009 39
5.0	200	200	315	70	33 009 48
6.0	200	200	350	70	33 009 57
10.0	200	200	480	70	33 009 66
15.0	200	200	640	70	33 009 75
20.0	200	200	800	70	33.009 84

The article no. must be completed with the porosity of the glass filter disc.

pore sizes :

Por. 0 = 160 - 250 μm
 Por. 1 = 100 - 160 μm
 Por. 2 = 40 - 100 μm
 Por. 3 = 16 - 40 μm
 Por. 4 = 10 - 16 μm
 Por. 5 = 1,0 - 1,6 μm

order number informations:

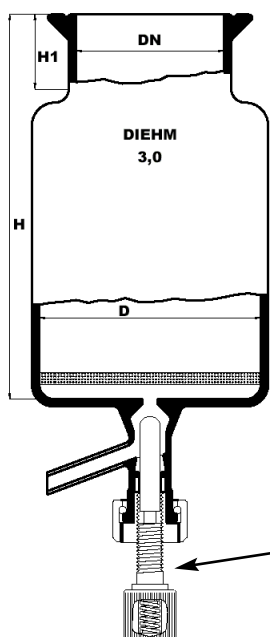
Art.no. + por. + outflow

Example: Filter vessel DN 150, 3 litre, filter 16 - 40 μm (Por. 3), outflow KF 25

order number:

33 009 27 3 KF25

Reaction vessel flat bottom with sinter plate and bottom valve



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.
Vessels DN 300 or larger are provided with a technical flange type Schott.
Different flanges are also available

The circumference form depends on capacity.
As shown on the graphic below

The valve is designed so that liquid rests flow through without leaving deposits acc. **GMP**. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction.

As alternative option we have 3 different stoppers for example with Pt100 sensor.
All variations are available with pneumatic cylinders.

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0.1	60	65	105	50	33 010 02
0.25	60	65	150	50	33 010 04
0.5	60	65	220	50	33 010 08
0.25	100	100	115	50	33 010 06
0.5	100	100	145	50	33 010 10
1.0	100	100	210	50	33 010 13
2.0	100	100	340	50	33 010 18
3.0	100	150	240	50	33 010 24
4.0	100	150	330	50	33 010 30
1.0	120	120	180	60	33 010 15
2.0	120	120	270	60	33 010 19
3.0	120	120	360	60	33 010 25
4.0	120	180	300	60	33 010 35
5.0	120	180	345	60	33 010 43
6.0	120	180	380	60	33 010 52
1.0	150	150	140	50	33 010 16
2.0	150	150	195	50	33 010 21
3.0	150	150	255	50	33 010 27
4.0	150	150	310	50	33 010 33
5.0	150	180	335	50	33 010 45
6.0	150	180	380	60	33 010 54
4.0	200	200	270	70	33 010 39
5.0	200	200	315	70	33 010 48
6.0	200	200	350	70	33 010 57
10.0	200	200	480	70	33 010 66
15.0	200	200	640	70	33 010 75
20.0	200	200	800	70	33.010 84

The article no. must be completed with the porosity of the glass filter disc.

pore sizes :

Por. 0 = 160 - 250 µm
 Por. 1 = 100 - 160 µm
 Por. 2 = 40 - 100 µm
 Por. 3 = 16 - 40 µm
 Por. 4 = 10 - 16 µm
 Por. 5 = 1,0 - 1,6 µm

order number informations:

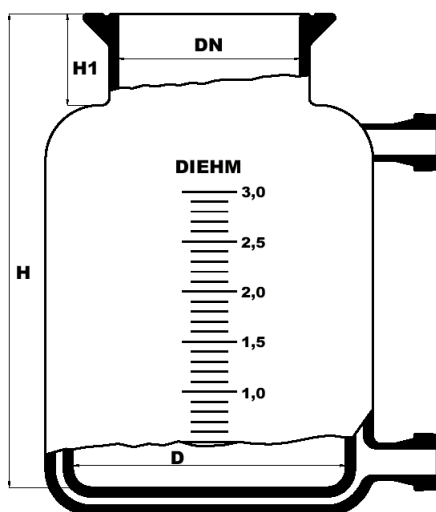
art. no. + Por. + valve + outflow

Example: filter vessel DN 150, 3 litre, filter 16 - 40 µm (Por. 3), valve 16 mm, outflow KF 25

order number:

33 009 27 3 V16 KF25

Thermostatic reaction vessel flat bottom



These vessels up to DN 200 are provided with a Schott laboratory flange with groove. Vessels DN 300 or larger are provided with a technical flange type Schott. Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott. The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.

The circumference form depends on capacity. As shown on the graphic below

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0.1	60	65	105	50	33 100 02
0.25	60	65	150	50	33 100 04
0.5	60	65	220	50	33 100 08
0.25	100	100	115	50	33 100 06
0.5	100	100	145	50	33 100 10
1.0	100	100	210	50	33 100 13
2.0	100	100	340	50	33 100 18
3.0	100	150	275	50	33 100 24
4.0	100	150	330	50	33 100 30
50.0	100	400	595	100	33 100 96
1.0	120	120	180	60	33 100 15
2.0	120	120	270	60	33 100 19
3.0	120	120	360	60	33 100 25
4.0	120	180	300	60	33 100 35
5.0	120	180	345	60	33 100 43
6.0	120	190	360	60	33 100 52
10.0	120	240	345	60	33 100 59
1.0	150	150	140	50	33 100 16
2.0	150	150	195	50	33 100 21
3.0	150	150	255	50	33 100 27
4.0	150	150	310	50	33 100 33
5.0	150	180	335	50	33 100 45
6.0	150	190	350	50	33 100 54
10.0	150	240	335	50	33 100 63
50.0	150	400	595	100	33 100 97
4.0	200	200	270	70	33 100 39
5.0	200	200	315	70	33 100 48
6.0	200	200	350	70	33 100 57
10.0	200	240	355	70	33 100 66
15.0	200	240	465	70	33 100 75
20.0	200	260	510	70	33 100 84

Hoseconnection for hose 12mm dia.



18 840 1512

Hoseconnection for metal hose M16x1



18 840 1516

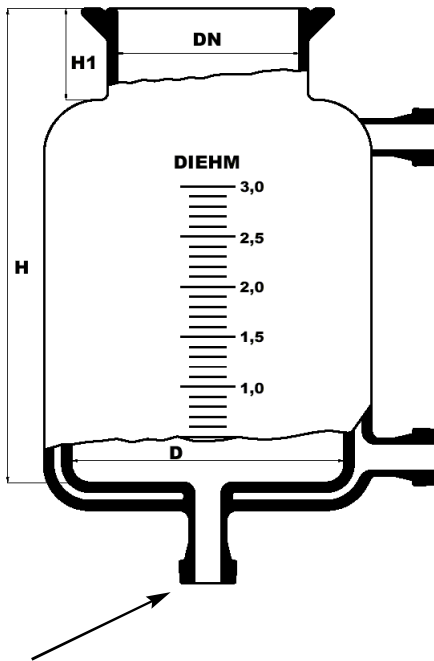
Suitable sealings

Silicone O-ring, seamless FEP coated
Art.no. F2922515

order numer informations:
The order number will be completed by the desired thermostatic connection.

Example:
Vessel DN 150, 3 litre, thermostatic connection KF 15
order number:
33 100 27 KF 15

Thermostatic reaction vessel flat bottom with bottom flange



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.

The circumference form depends on capacity. As shown on the graphic below

This type of vessel is provided with a bottom flange DN 15 plane type Schott.

Other flanges or screw connections are also available at no extra charge.

For usage of heating covers the vessels can be used with a longer flange.

order number informations:

The order number will be completed by the desired thermostatic connection and Bottom flange.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15, Bottom flange GL 25.

order number:

33 105 27 KF15 GL25

Hoseconnection for metal hose M16 x 1



18 840 1516

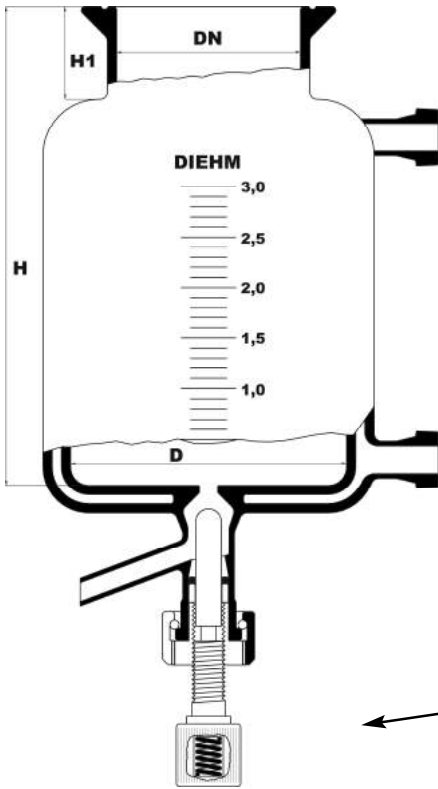
Suitable sealings

Silicone O-ring, seamless
FEP coated

Art.no. F2922515

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0.1	60	65	105	50	33 105 02
0.25	60	65	150	50	33 105 04
0.5	60	65	220	50	33 105 08
0.25	105	105	115	50	33 105 06
0.5	105	105	145	50	33 105 10
1.0	105	105	210	50	33 105 13
2.0	105	105	340	50	33 105 18
3.0	105	150	275	50	33 105 24
4.0	105	150	330	50	33 105 30
50.0	105	400	595	105	33 105 96
1.0	120	120	180	60	33 105 15
2.0	120	120	270	60	33 105 19
3.0	120	120	360	60	33 105 25
4.0	120	180	300	60	33 105 35
5.0	120	180	345	60	33 105 43
6.0	120	190	360	60	33 105 52
10.0	120	240	345	60	33 105 59
1.0	150	150	140	50	33 105 16
2.0	150	150	195	50	33 105 21
3.0	150	150	255	50	33 105 27
4.0	150	150	310	50	33 105 33
5.0	150	180	335	50	33 105 45
6.0	150	190	350	50	33 105 54
10.0	150	240	335	50	33 105 63
50.0	150	400	595	105	33 105 97
4.0	200	200	270	70	33 105 39
5.0	200	200	315	70	33 105 48
6.0	200	200	350	70	33 105 57
10.0	200	240	355	70	33 105 66
15.0	200	240	465	70	33 105 75
20.0	200	260	510	70	33 105 84

Thermostatic reaction vessel flat bottom with bottom valve



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.
Vessels DN 300 or larger are provided with a technical flange type Schott.
Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.
The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.

The valve is designed so that liquid rests flow through without leaving deposits acc. **GMP**. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction. As alternative option we have 3 different stoppers for example with Pt100 sensor. All variations are available with pneumatic cylinders.

order number informations:

The order number will be completed by the desired thermostatic connection and the bottom valve.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15, bottom valve 10 mm

order number:

33 110 27 KF15 V10

Cap. liters	DN mm	D mm	H mm	H1 mm	valve mm	Art.no.
0.1	60	65	105	50	10	33 110 02
0.25	60	65	150	50	10	33 110 04
0.5	60	65	220	50	10	33 110 08
0.25	100	100	115	50	10	33 110 06
0.5	100	100	145	50	10	33 110 10
1.0	100	100	210	50	10	33 110 13
2.0	100	100	340	50	10	33 110 18
3.0	100	150	275	50	10	33 110 24
4.0	100	150	330	50	10	33 110 30
1.0	120	120	180	60	10	33 110 15
2.0	120	120	270	60	10	33 110 19
3.0	120	120	360	60	10	33 110 25
4.0	120	180	300	60	10	33 110 35
5.0	120	180	345	60	10	33 110 43
6.0	120	190	360	60	10	33 110 52
10.0	120	240	345	60	16	33 110 59
1.0	150	150	140	50	10	33 110 16
2.0	150	150	195	50	10	33 110 21
3.0	150	150	255	50	10	33 110 27
4.0	150	150	310	50	10	33 110 33
5.0	150	180	335	50	10	33 110 45
6.0	150	190	350	50	10	33 110 54
10.0	150	240	335	50	16	33 110 63
4.0	200	200	270	70	10	33 110 39
5.0	200	200	315	70	10	33 110 48
6.0	200	200	350	70	10	33 110 57
10.0	200	240	355	70	16	33 110 66
15.0	200	240	465	70	20	33 110 75

The circumference form depends on capacity. As shown on the graphic below

Hoseconnection for hose 12mm dia.



18 840 1512

Hoseconnection for metal hose M16 x 1



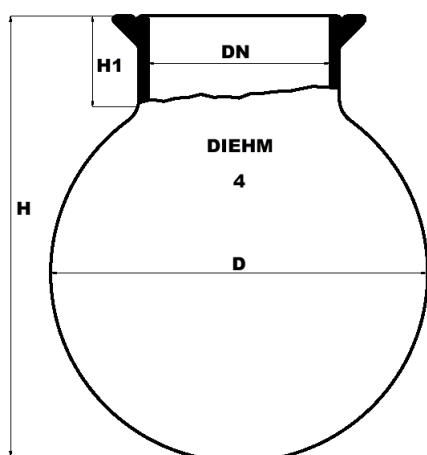
18 840 1516

Suitable sealings

Silicone O-ring, seamless FEP coated

Art.no. F2922515

Reaction vessel round bottom



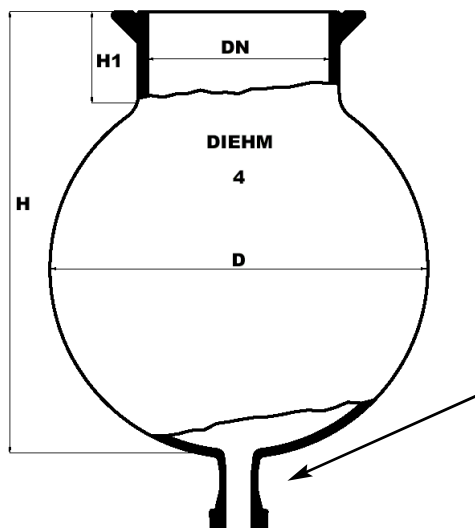
These vessels up to DN 200 are provided with a Schott laboratory flange with groove

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

Cap. Litre	DN mm	D mm	H mm	H1 mm	Art.No.
2	100	166	215	75	33 002 05
3	100	185	235	70	33 002 10
4	100	207	255	65	33 002 13
5	100	223	275	70	33 002 16
6	100	236	295	70	33 002 19
10	100	279	325	60	33 002 22
20	100	345	400	70	33 002 25
50	100	490	550	70	33 002 30
2	120	166	215	85	33 002 07
3	120	185	235	80	33 002 11
4	120	207	255	75	33 002 14
5	120	223	275	75	33 002 17
6	120	236	295	75	33 002 20
10	120	279	325	65	33 002 23
20	120	345	400	75	33 002 26
50	120	490	550	70	33 002 33
3	150	185	235	100	33 002 40
4	150	207	255	90	33 002 43
5	150	223	275	90	33 002 46
6	150	236	295	90	33 002 49
10	150	279	340	75	33 002 52
20	150	345	400	85	33 002 55
50	150	490	550	80	33 002 58
10	200	279	325	100	33 002 70
20	200	345	400	95	33 002 73
50	200	490	550	90	33 002 77
100	200	610	675	90	33 002 87
50	300	490	550	120	33 002 90
100	300	610	675	115	33 002 95
200	300	750	915	205	33 002 97

Sherical reaction vessels



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

This type of vessel is provided with a bottom flange DN 15 plane type Schott.

Other flanges or screw connections are also available at no extra charge.

For usage of heating covers the vessels can be used with a longer flange.

order number informations:

The order number will be with KF 15; GL 25; KS 35.... completed.

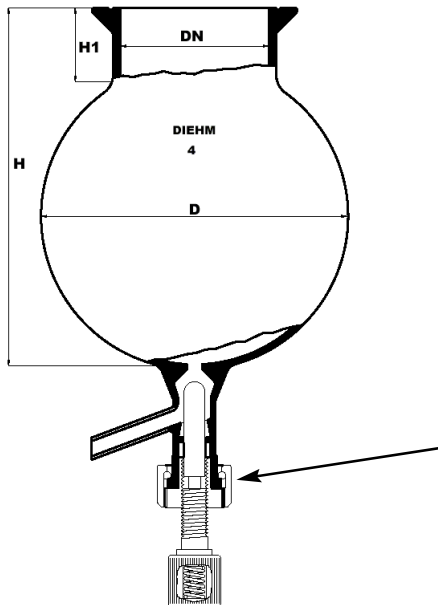
Example:

A reactor DN 100 with 1 litre capacity and a outflow flange KF 15 has the order number:

33 005 13 KF 15

Cap. Litre	DN mm	D mm	H mm ca.	H1 mm	Art.No.
2	100	166	215	60	33 005 05 GL18
3	100	185	235	60	33 005 10 GL18
4	100	207	255	60	33 005 13 GL18
5	100	223	280	60	33 005 16 GL18
6	100	236	295	60	33 005 19 GL18
2	120	166	215	60	33 005 07 GL18
3	120	185	235	60	33 005 11 GL18
4	120	207	255	60	33 005 14 GL18
5	120	223	275	60	33 005 17 GL18
6	120	236	290	60	33 005 20 GL18
3	150	185	235	80	33 005 40 GL18
4	150	207	255	80	33 005 43 GL18
5	150	223	275	80	33 005 46 GL18
6	150	236	290	80	33 005 49 GL18
2	100	166	215	60	33 005 05 KF15
3	100	185	235	60	33 005 10 KF15
4	100	207	255	60	33 005 13 KF15
5	100	223	275	60	33 005 16 KF15
6	100	236	290	60	33 005 19 KF15
2	120	166	215	60	33 005 07 KF15
3	120	185	235	60	33 005 11 KF15
4	120	207	255	60	33 005 14 KF15
5	120	223	275	60	33 005 17 KF15
6	120	236	290	60	33 005 20 KF15
3	150	185	235	80	33 005 40 KF15
4	150	207	255	80	33 005 43 KF15
5	150	223	275	80	33 005 46 KF15
6	150	236	290	80	33 005 49 KF15
10	150	279	325	70	33 005 52 KF15
10	200	279	325	70	33 005 70 KF15
20	200	345	400	70	33 005 73 KF25
50	200	490	550	120	33 005 77 KF25
100	200	610	675	105	33 005 87 KF25
50	300	490	550	120	33 005 90 KF25
100	300	610	675	115	33 005 95 KF25
200	300	750	915	205	33 005 97 KF25

Spherical reaction vessel with bottom valve



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

The valve is designed so that liquid rests flow through without leaving deposits acc. **GMP**. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction. As alternative option we have 3 different stoppers for example with Pt100 sensor. All variations are available with pneumatic cylinders.

Order number informations:

The order number will at the end with V10...V25 (for the valve) and maybe GL 18... KF25 (for the relevant outflow) completed.

Reactors with a simple discharge pipe get the valve title only.

Example:

Reactor 1 litre DN 100 with 16 mm valve and GL 25 outflow.

Order number:

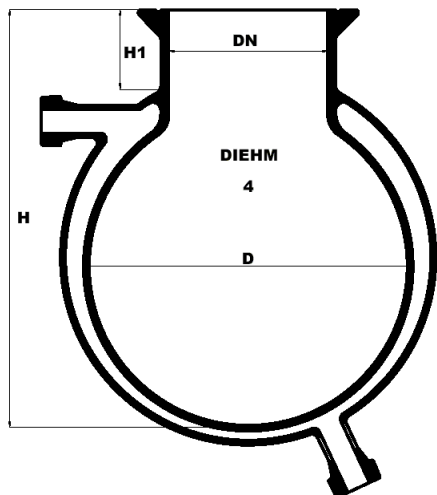
33 006 13 V 16 GL 25

Inhalt Liter	DN mm	D mm	H mm	H1 mm	Ventil mm	Best.Nr.
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ca.

2	100	162	215	60	10	33 006 05 V10
3	100	180	235	60	10	33 006 10 V10
4	100	200	255	60	10	33 006 13 V10
5	100	215	280	60	10	33 006 16 V10
6	100	230	290	60	10	33 006 19 V10
10	100	270	325	60	16	33 006 22 V16
20	100	335	400	70	20	33 006 25 V20
50	100	480	550	70	10	33 006 30 V25
2	120	162	215	60	10	33 006 07 V10
3	120	180	235	60	10	33 006 11 V10
4	120	200	255	60	10	33 006 14 V10
5	120	215	275	60	10	33 006 17 V10
6	120	230	290	60	10	33 006 20 V10
10	120	270	325	65	16	33 006 23 V16
20	120	335	400	75	20	33 006 26 V20
50	120	480	550	70	10	33 006 33 V25
3	150	180	235	80	10	33 006 40 V10
4	150	200	255	80	10	33 006 43 V10
5	150	215	275	80	10	33 006 46 V10
6	150	230	290	80	10	33 006 49 V10
10	150	270	325	75	16	33 006 52 V16
20	150	335	400	85	20	33 006 55 V20
50	150	480	550	80	10	33 006 61 V25
10	200	279	325	100	16	33 006 70 V16
20	200	345	400	95	20	33 006 73 V20
50	200	490	550	90	25	33 006 77 V25
100	200	610	675	90	25	33 006 87 V25
50	200	490	550	120	25	33 006 90 V25
100	300	610	675	115	25	33 006 95 V25
200	300	750	890	205	25	33 006 97 V25

Spherical thermostatic reaction vessels



These vessels up to DN 200 are provided with a Schott laboratory flange with groove. Vessels DN 300 or larger are provided with a technical flange type Schott. Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.

order numer informations:

The order number will be completed by the desired thermostatic connection.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15

order number:

33 104 27 KF 15

Cap. liters	DN mm	D mm	H mm ca.	H1 mm	Art.no.
2	100	166	225	60	33 104 05
3	100	185	235	60	33 104 10
4	100	207	270	60	33 104 13
5	100	223	275	60	33 104 16
6	100	236	285	60	33 104 19
2	120	166	225	60	33 104 07
3	120	185	245	60	33 104 11
4	120	207	270	60	33 104 14
5	120	223	285	60	33 104 17
6	120	236	300	60	33 104 20
3	150	185	230	80	33 104 40
4	150	207	255	80	33 104 43
5	150	223	280	80	33 104 46
6	150	236	295	80	33 104 49
10	150	279	325	50	33 104 52
10	200	279	350	70	33 104 70
20	200	345	415	70	33 104 73
50	200	510	580	70	33 104 76
50	300	510	610	100	33 104 90
100	300	610	710	100	33 104 98

Hoseconnection for
hose 12mm dia.



18 840 1512

Hoseconnection for
metal hose M16 x 1



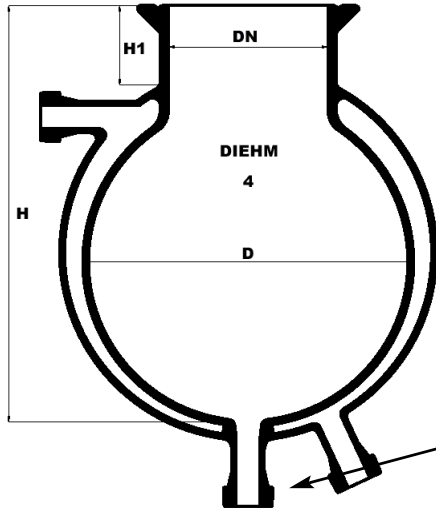
18 840 1516

Suitable sealings

Silicone O-ring, seamless
FEP coated

Art.no. F2922515

Spherical thermostatic reaction vessels with bottom flange



These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.

This type of vessel is provided with a bottom flange DN 15 plane type Schott.

Other flanges or screw connections are also available at no extra charge.

For usage of heating covers the vessels can be used with a longer flange.

order number informations:

The order number will be completed by the desired thermostatic connection and Bottom flange.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15, Bottom flange GL 25.

order number:

33 107 27 KF15 GL25

Cap. liters	DN mm	D mm	H mm ca.	H1 mm	Art.no.
2	100	166	225	60	33 107 05
3	100	185	235	60	33 107 10
4	100	207	270	60	33 107 13
5	100	223	275	60	33 107 16
6	100	236	285	60	33 107 19
2	120	166	225	60	33 107 07
3	120	185	245	60	33 107 11
4	120	207	270	60	33 107 14
5	120	223	285	60	33 107 17
6	120	236	300	60	33 107 20
3	150	185	230	80	33 107 40
4	150	207	255	80	33 107 43
5	150	223	280	80	33 107 46
6	150	236	295	80	33 107 49
10	150	279	325	50	33 107 52
10	200	279	350	70	33 107 70
20	200	345	415	70	33 107 73
50	200	510	580	70	33 107 76
50	300	510	610	100	33 107 90
100	300	610	710	100	33 107 98

Hoseconnection for hose 12mm dia.



18 840 1512

Hoseconnection for metal hose M16 x 1



18 840 1516

Suitable sealings

Silicone O-ring, seamless
FEP coated
Art.no. F2922515

Spherical thermostatic reaction vessels with bottom valve

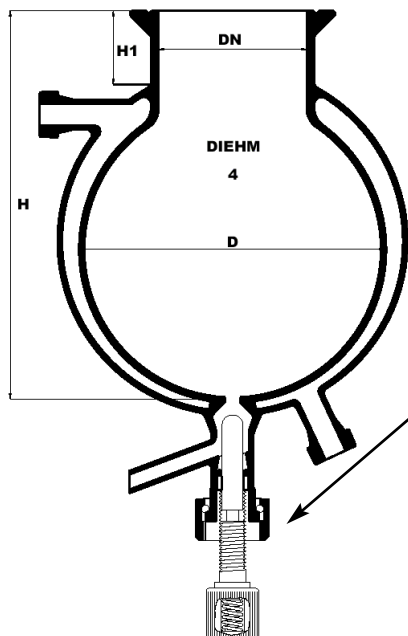
These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.



The valve is designed so that liquid rests flow through without leaving deposits acc. **GMP**. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction. As alternative option we have 3 different stoppers for example with Pt100 sensor. All variations are available with pneumatic cylinders.

order number informations:

The order number will be completed by the desired thermostatic connection and the bottom valve.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15, bottom valve 10 mm

order number:

33 113 27 KF15 V10

Cap. liters	DN mm	D mm ca.	H mm	H1 mm	valve mm	Art.no.
2	100	166	225	60	10	33 113 05
3	100	185	235	60	10	33 113 10
4	100	207	270	60	10	33 113 13
5	100	223	275	60	10	33 113 16
6	100	236	285	60	10	33 113 19
2	120	166	225	60	10	33 113 07
3	120	185	245	60	10	33 113 11
4	120	207	270	60	10	33 113 14
5	120	223	285	60	10	33 113 17
6	120	236	300	60	10	33 113 20
3	150	185	230	80	10	33 113 40
4	150	207	255	80	10	33 113 43
5	150	223	280	80	10	33 113 46
6	150	236	295	80	10	33 113 49
10	150	279	325	50	16	33 113 52
10	200	279	350	70	16	33 113 70
20	200	345	415	70	20	33 113 73
50	200	510	580	70	25	33 113 76
50	300	510	610	100	25	33 113 90
100	300	610	710	100	25	33 113 98

Hoseconnection for
hose 12mm dia.



18 840 1512

Hoseconnection for
metal hose M16 x 1



18 840 1516

Suitable sealings

Silicone O-ring, seamless
FEP coated

Art.no. F2922515

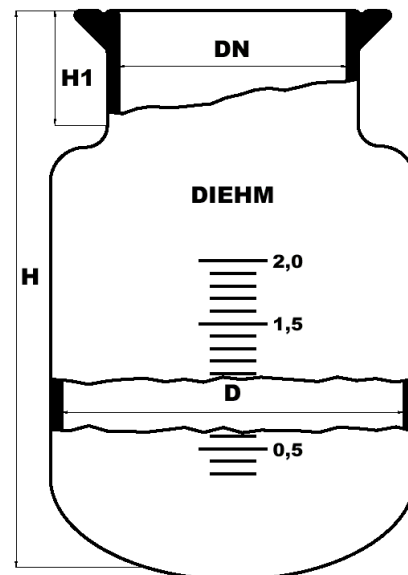
Reaction vessels with dished bottom

These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flanges type Schott.

Different other flanges are also available

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0,1	60	65	110	50	33 001 02
0,25	60	65	160	50	33 001 04
0,5	60	65	230	50	33 001 08
0,25	100	100	130	50	33 001 06
0,5	100	100	170	50	33 001 10
1,0	100	100	230	50	33 001 13
2,0	100	150	245	50	33 001 18
3,0	100	150	300	50	33 001 24
4,0	100	150	360	50	33 001 30
0,5	120	120	155	50	33 001 11
1,0	120	120	200	50	33 001 15
2,0	120	120	290	50	33 001 19
3,0	120	150	300	50	33 001 25
4,0	120	150	370	50	33 001 35
5,0	120	180	330	50	33 001 43
6,0	120	180	360	50	33 001 52
10,0	120	240	370	50	33 001 61
2,0	150	150	220	50	33 001 21
3,0	150	150	280	50	33 001 27
4,0	150	150	335	50	33 001 36
5,0	150	150	395	50	33 001 42
5,0	150	180	330	50	33 001 45
6,0	150	180	370	50	33 001 53
6,0	150	200	340	50	33 001 54
10,0	150	240	350	50	33 001 64
15,0	150	260	460	50	33 001 72
20,0	150	260	535	50	33 001 81
4,0	200	200	270	70	33 001 39
5,0	200	200	310	70	33 001 48
6,0	200	200	340	70	33 001 57
10,0	200	200	470	70	33 001 66
10,0	200	240	390	70	33 001 70
10,0	200	260	350	70	33 001 71
15,0	200	260	460	70	33 001 78
20,0	200	260	550	70	33 001 87
30,0	200	300	610	70	33 001 89
20	300	300	500	100	33 001 86
25	300	300	550	100	33 001 95
30	300	300	610	100	33 001 96
50	300	300	870	100	33 001 98
50	300	340	760	100	33 001 99
50	300	375	610	100	33 001 052
50	400	400	550	110	33 001 050
80	400	400	800	110	33 001 080
100	400	460	800	110	33 001 100
150	450	460	1100	110	33 001 152
200	400	443	1590	110	33 001 200
200	450	443	1590	110	33 001 201

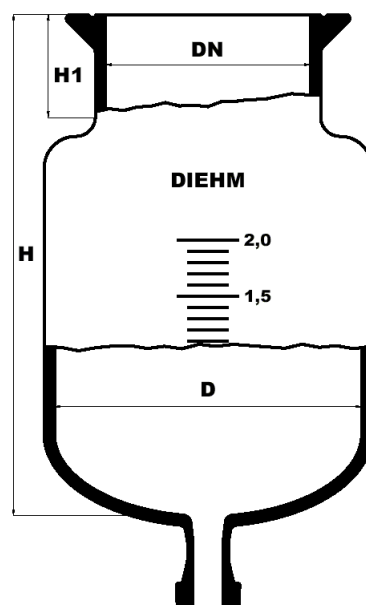


Reaction vessels with dished bottom and bottom flange

These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott. Other flanges as option are possible.

Cap. liters	DN mm	D mm	H mm	H1 mm	Outlet Flange	Art.no.
0,1	60	65	110	50	KF15/3	33 003 02 KF15
0,25	60	65	160	50	KF15/3	33 003 04 KF15
0,5	60	65	230	50	KF15/3	33 003 08 KF15
0,25	100	100	130	50	KF15/3	33 003 06 KF15
0,5	100	100	170	50	KF15/3	33 003 10 KF15
1,0	100	100	230	50	KF15/3	33 003 13 KF15
2,0	100	150	245	50	KF15/3	33 003 18 KF15
3,0	100	150	300	50	KF15/3	33 003 24 KF15
4,0	100	150	360	50	KF15/3	33 003 30 KF15
0,5	120	120	155	50	KF15/3	33 003 11 KF15
1,0	120	120	200	50	KF15/3	33 003 15 KF15
2,0	120	120	290	50	KF15/3	33 003 19 KF15
3,0	120	150	300	50	KF15/3	33 003 25 KF15
4,0	120	150	370	50	KF15/3	33 003 35 KF15
5,0	120	180	330	50	KF15/3	33 003 43 KF15
6,0	120	180	360	50	KF15/3	33 003 52 KF15
10,0	120	240	370	50	KF15/3	33 003 61 KF15
2,0	150	150	220	50	KF15/3	33 003 21 KF15
3,0	150	150	280	50	KF15/3	33 003 27 KF15
4,0	150	150	335	50	KF15/3	33 003 36 KF15
5,0	150	150	395	50	KF15/3	33 003 42 KF15
5,0	150	180	330	50	KF15/3	33 003 45 KF15
6,0	150	180	370	50	KF15/3	33 003 53 KF15
6,0	150	200	340	50	KF15/3	33 003 54 KF15
10,0	150	240	350	50	KF15/3	33 003 64 KF15
15,0	150	260	460	50	KF15/3	33 003 72 KF15
20,0	150	260	535	50	KF15/3	33 003 81 KF15
4,0	200	200	270	70	KF15/3	33 003 39 KF15
5,0	200	200	310	70	KF15/3	33 003 48 KF15
6,0	200	200	340	70	KF15/3	33 003 57 KF15
10,0	200	200	470	70	KF15/3	33 003 66 KF15
10,0	200	240	390	70	KF15/3	33 003 70 KF15
10,0	200	260	350	70	KF15/3	33 003 71 KF15
15,0	200	260	460	70	KF15/3	33 003 78 KF15
20,0	200	260	550	70	KF15/3	33 003 87 KF15
30,0	200	300	610	70	KF15/3	33 003 89 KF15
20	300	300	500	100	KF15/3	33 003 86 KF15
25	300	300	550	100	KF25/3	33 003 95 KF25
30	300	300	610	100	KF25/3	33 003 96 KF25
50	300	300	870	100	KF25/3	33 003 98 KF25
50	300	340	760	100	KF25/3	33 003 99 KF25
50	300	375	610	100	KF25/3	33 003 052 KF25
50	400	400	550	110	KF25/3	33 003 050 KF25
80	400	400	800	110	KF25/3	33 003 080 KF25
100	400	460	800	110	KF25/3	33 003 100 KF25
100	450	460	800	110	KF25/3	33 003 102 KF25
150	450	460	1100	110	KF25/3	33 003 152 KF25
200	400	443	1590	110	KF25/3	33 003 200 KF25/3
200	450	443	1590	110	KF25/3	33 003 201 KF25/3



This type of vessel is provided with a bottom flange plane type Schott. Other flanges or screw connections are also available.

For usage of heating covers the vessels can be provided with longer connectors.

order number informations:

Depended of the needed bottom outlet the end of the article number would be changed to:

GL18	for a screw thread GL 18,
GL25	for a screw thread GL 25,
GL32	for a screw thread GL 32,
KS19	for a ball joint KS 19,
KS29	for a ball joint KS 29,
KS35	for a ball joint KS 35,
KF15	for a plane flange KF 15/3
KF25	for a plane flange KF 25/3

Example:

A reactor DN 150 with 10 litre capacity and a outflow flange KF 25/3 have the article number:

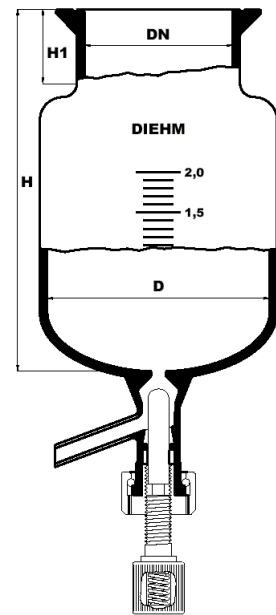
33 003 64 KF25

Reaction vessels with dished bottom and bottom valve

These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott. Other flanges as option are possible.

Cap. liters	DN mm	D mm	H mm	H1 mm	valve mm	Art.no.
0,1	60	65	110	50	10 mm	33 004 02 V10
0,25	60	65	160	50	10 mm	33 004 04 V10
0,5	60	65	230	50	10 mm	33 004 08 V10
0,25	100	100	130	50	10 mm	33 004 06 V10
0,5	100	100	170	50	10 mm	33 004 10 V10
1,0	100	100	230	50	10 mm	33 004 13 V10
2,0	100	150	245	50	10 mm	33 004 18 V10
3,0	100	150	300	50	10 mm	33 004 24 V10
4,0	100	150	360	50	10 mm	33 004 30 V10
0,5	120	120	155	50	10 mm	33 004 11 V10
1,0	120	120	200	50	10 mm	33 004 15 V10
2,0	120	120	290	50	10 mm	33 004 19 V10
3,0	120	150	300	50	10 mm	33 004 25 V10
4,0	120	150	370	50	10 mm	33 004 35 V10
5,0	120	180	330	50	10 mm	33 004 43 V10
6,0	120	180	360	50	10 mm	33 004 52 V10
10,0	120	240	370	50	16 mm	33 004 61 V10
2,0	150	150	220	50	10 mm	33 004 21 V10
3,0	150	150	280	50	10 mm	33 004 27 V10
4,0	150	150	335	50	10 mm	33 004 36 V10
5,0	150	150	395	50	10 mm	33 004 42 V10
5,0	150	180	330	50	10 mm	33 004 45 V10
6,0	150	180	370	50	10 mm	33 004 53 V10
6,0	150	200	340	50	10 mm	33 004 54 V10
10,0	150	240	350	50	16 mm	33 004 64 V16
15,0	150	260	460	50	20 mm	33 004 72 V20
20,0	150	260	535	50	20 mm	33 004 81 V20
4,0	200	200	270	70	10 mm	33 004 39 V10
5,0	200	200	310	70	10 mm	33 004 48 V10
6,0	200	200	340	70	10 mm	33 004 57 V10
10,0	200	200	470	70	16 mm	33 004 66 V16
10,0	200	240	390	70	16 mm	33 004 70 V16
10,0	200	260	350	70	16 mm	33 004 71 V16
15,0	200	260	460	70	20 mm	33 004 78 V20
20,0	200	260	550	70	20 mm	33 004 87 V20
30,0	200	300	610	70	20 mm	33 004 89 V20
20	300	300	500	100	20 mm	33 004 86 V20
25	300	300	550	100	25 mm	33 004 95 V25
30	300	300	610	100	25 mm	33 004 96 V25
50	300	300	870	100	25 mm	33 004 98 V25
50	300	340	760	100	25 mm	33 004 99 V25
50	300	375	610	100	25 mm	33 004 052 V25
50	400	400	550	110	25 mm	33 004 050 V25
80	400	400	800	110	25 mm	33 004 080 V25
100	400	460	800	110	25 mm	33 004 100 V25
100	400	460	800	110	50 mm	33 004 101 V25
100	450	460	800	110	25 mm	33 004 102 V25
100	450	460	800	110	50 mm	33 004 103 V25
150	450	460	1100	110	25 mm	33 004 152 V25
200	400	443	1590	110	25 mm	33 004 200 V25
200	450	443	1590	110	25 mm	33 004 201 V25



The valve is designed so that liquid rests flow through without leaving deposits acc. **GMP**. It is also designed with a spring loaded plug to prevent leakage caused by expansion and reduction of the PTFE. As alternative option we have 3 more different types for example with Pt100 sensor see page 55 - 57. All variations are also available with pneumatic cylinders.

Article number informations:

The article number ends are provided with V10 ... V50 for the valve size and maybe GL 18 ... KF25 for the outlet. As standard the valves are designed like following table.

- 10 mm - GL 18,
- 16 mm - KF 15/3
- 20 mm - KF 20/3
- 25 mm - KF 25/3
- 50 mm - KF 50/3

The written valve size is the min. size. larger valve sizes are possible.

Example:

Reactor 1 Litre DN 100 with valve 16 mm and outlet GL 25

Article number:
33 004 13 V16 GL25

Reaction vessels with glass filter plate and bottom flange

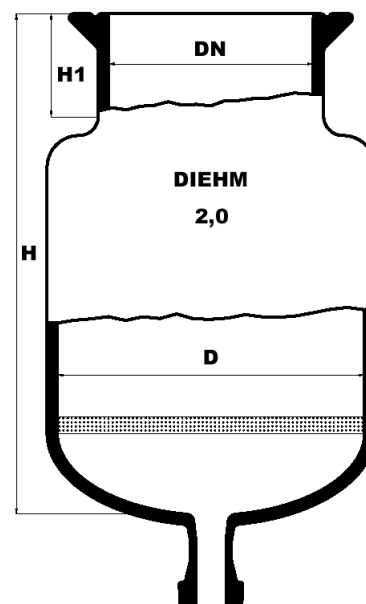
These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

This type of vessel is provided with a bottom flange DN 15 plane type Schott. Other flanges or screw connections are also available at no extra charge.

For usage of heating covers the vessels can be used with a longer flange.



Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0,1	60	65	110	50	33 011 02
0,25	60	65	160	50	33 011 04
0,5	60	65	230	50	33 011 08
0,25	100	100	130	50	33 011 06
0,5	100	100	170	50	33 011 10
1,0	100	100	230	50	33 011 13
2,0	100	150	245	50	33 011 18
3,0	100	150	300	50	33 011 24
4,0	100	150	360	50	33 011 30
1,0	120	120	200	60	33 011 15
2,0	120	120	290	60	33 011 19
3,0	120	150	310	60	33 011 25
4,0	120	150	370	60	33 011 35
5,0	120	180	340	60	33 011 43
6,0	120	180	380	60	33 011 52
2,0	150	150	220	50	33 011 21
3,0	150	150	280	50	33 011 27
4,0	150	150	335	50	33 011 36
5,0	150	180	330	50	33 011 45
6,0	150	180	370	50	33 011 53
10,0	150	200	470	50	33 011 62
4,0	200	200	270	70	33 011 39
5,0	200	200	310	70	33 011 48
6,0	200	200	345	70	33 011 57
10,0	200	200	470	70	33 011 66
15,0	200	200	630	70	33 011 75
20,0	200	200	790	70	33 011 84

The article no. must be completed with the porosity of the glass filter disc.

pore sizes :

Por. 0 =	160 - 250 µm
Por. 1 =	100 - 160 µm
Por. 2 =	40 - 100 µm
Por. 3 =	16 - 40 µm
Por. 4 =	10 - 16 µm
Por. 5 =	1,0 - 1,6 µm

order number informations:

Art.no. + por. + outflow

Example: Filter vessel DN 150, 3 litre, filter 16 - 40 µm (Por. 3), outflow KF 25

order number:

33 011 27 3 KF25

Reaction vessel with glass filter plate and bottom valve

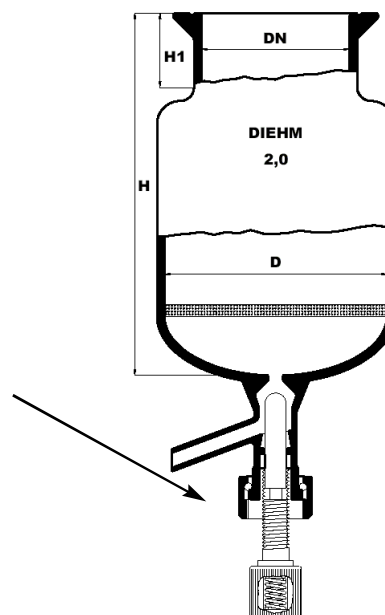
These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

The valve is designed so that liquid rests flow through without leaving deposits. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction. As alternative option we have 3 different stoppers for example with Pt100 sensor.

All variations are available with pneumatic cylinders.



Cap. liters	DN mm	D mm	H mm	H1 mm	valve mm	Art.no.
0,1	60	65	110	50	10	33 012 02
0,25	60	65	160	50	10	33 012 04
0,5	60	65	230	50	10	33 012 08
0,25	100	100	130	50	10	33 012 06
0,5	100	100	170	50	10	33 012 10
1,0	100	100	230	50	10	33 012 13
2,0	100	150	245	50	10	33 012 18
3,0	100	150	300	50	10	33 012 24
4,0	100	150	360	50	10	33 012 30
1,0	120	120	200	60	10	33 012 15
2,0	120	120	290	60	10	33 012 19
3,0	120	150	310	60	10	33 012 25
4,0	120	150	370	60	10	33 012 35
5,0	120	180	340	60	10	33 012 43
6,0	120	180	380	60	10	33 012 52
2,0	150	150	220	50	10	33 012 21
3,0	150	150	280	50	10	33 012 27
4,0	150	150	335	50	10	33 012 36
5,0	150	180	330	50	10	33 012 45
6,0	150	180	370	50	10	33 012 53
10,0	150	200	470	50	16	33 012 62
4,0	200	200	270	70	10	33 012 39
5,0	200	200	310	70	10	33 012 48
6,0	200	200	345	70	10	33 012 57
10,0	200	200	470	70	16	33 012 66
15,0	200	200	630	70	16	33 012 75
20,0	200	200	790	70	16	33 012 84

The article no. must be completed with the porosity of the glass filter disc.

pore sizes :

- Por. 0 = 160 - 250 µm
- Por. 1 = 100 - 160 µm
- Por. 2 = 40 - 100 µm
- Por. 3 = 16 - 40 µm
- Por. 4 = 10 - 16 µm
- Por. 5 = 1,0 - 1,6 µm

order number informations:

art. no. + Por. + valve + outflow

Example: filter vessel DN 150, 3 litre, filter 16 - 40 µm (Por. 3), valve 16 mm, outflow KF 25

order number:

33 012 27 3 V16 KF25

Thermostatic reaction vessel

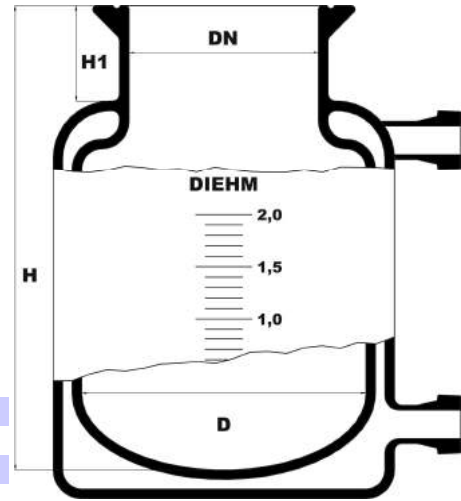
These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.



Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0,1	60	65	110	50	33 102 02
0,25	60	65	160	50	33 102 04
0,5	60	65	230	50	33 102 08
0,25	100	100	130	50	33 102 06
0,5	100	100	170	50	33 102 10
1,0	100	100	230	50	33 102 13
2,0	100	150	245	50	33 102 18
3,0	100	150	300	50	33 102 24
4,0	100	150	360	50	33 102 30
1,0	120	120	200	60	33 102 15
2,0	120	120	290	60	33 102 19
3,0	120	150	310	60	33 102 25
4,0	120	150	370	60	33 102 35
5,0	120	180	340	60	33 102 43
6,0	120	180	380	60	33 102 52
10,0	120	240	390	60	33 102 61
2,0	150	150	220	50	33 102 21
3,0	150	150	280	50	33 102 27
4,0	150	150	335	50	33 102 36
5,0	150	180	330	50	33 102 45
6,0	150	180	370	50	33 102 53
10,0	150	240	370	50	33 102 64
15,0	150	240	490	50	33 102 72
20,0	150	260	535	50	33 102 81
4,0	200	200	270	70	33 102 39
5,0	200	200	310	70	33 102 48
6,0	200	200	345	70	33 102 57
10,0	200	200	470	70	33 102 66
10,0	200	240	390	70	33 102 70
10,0	200	260	350	70	33 102 71
15,0	200	260	460	70	33 102 78
20,0	200	260	550	70	33 102 87
30,0	200	300	610	70	33 102 89
20	300	300	500	100	33 102 86
25	300	300	550	100	33 102 95
30	300	300	610	100	33 102 96
50	300	340	760	100	33 102 99
50	300	375	610	100	33 102 052
50	400	400	550	100	33 102 050
100	400	460	800	100	33 102 100
100	450	460	800	100	33 102 102

order numer informations:

The order number will be completed by the desired thermostatic connection.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15

order number:

33 102 27 KF 15

Hoseconnection for hose 12mm dia.



18 840 1512

Hoseconnection for metal hose M16 x 1



18 840 1516

Suitable sealings

Silicone O-ring, seamless FEP coated

Art.no. F2922515

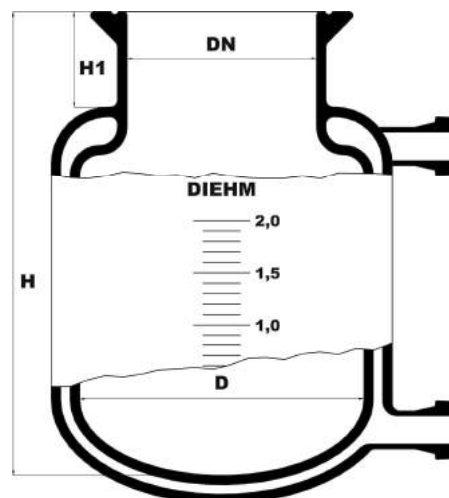
Thermostatic reaction vessel, cylindrical with round bottom

These vessels up to DN 200 are provided with a Schott laboratory flange with groove.

Vessels DN 300 or larger are provided with a technical flange type Schott. Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.



Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0,1	60	65	110	50	33 103 02
0,25	60	65	160	50	33 103 04
0,5	60	65	230	50	33 103 08
0,25	100	100	130	50	33 103 06
0,5	100	100	170	50	33 103 10
1,0	100	100	230	50	33 103 13
2,0	100	150	245	50	33 103 18
3,0	100	150	300	50	33 103 24
4,0	100	150	360	50	33 103 30
1,0	120	120	200	60	33 103 15
2,0	120	120	290	60	33 103 19
3,0	120	150	310	60	33 103 25
4,0	120	150	370	60	33 103 35
5,0	120	180	340	60	33 103 43
6,0	120	180	380	60	33 103 52
10,0	120	240	390	60	33 103 61
2,0	150	150	220	50	33 103 21
3,0	150	150	280	50	33 103 27
4,0	150	150	335	50	33 103 36
5,0	150	180	330	50	33 103 45
6,0	150	180	370	50	33 103 53
10,0	150	240	370	50	33 103 64
15,0	150	240	490	50	33 103 72
20,0	150	260	535	50	33 103 81
4,0	200	200	270	70	33 103 39
5,0	200	200	310	70	33 103 48
6,0	200	200	345	70	33 103 57
10,0	200	200	470	70	33 103 66
10,0	200	240	390	70	33 103 70
10,0	200	260	350	70	33 103 71
15,0	200	260	460	70	33 103 78
20,0	200	260	550	70	33 103 87
30,0	200	300	610	70	33 103 89
20	300	300	500	100	33 103 86
25	300	300	550	100	33 103 95
30	300	300	610	100	33 103 96
50	300	340	760	100	33 103 99
50	300	375	610	100	33 103 052
50	400	400	550	100	33 103 050
100	400	460	800	100	33 103 100
100	450	460	800	100	33 103 102

order numer informations:

The order number will be completed by the desired thermostatic connection.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15

order number:

33 103 27 KF 15

Hoseconnection for hose 12mm dia.



18 840 1512

Hoseconnection for metal hose M16 x 1



18 840 1516

Suitable sealings

Silicone O-ring, seamless
FEP coated

Art.no. F2922515

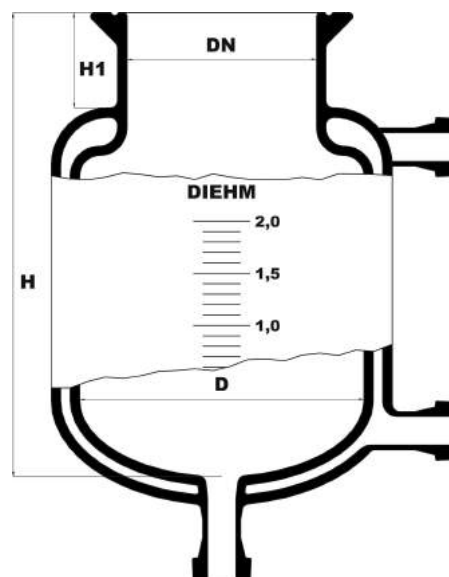
Thermostatic reaction vessel with bottom flange

These vessels up to DN 200 are provided with a Schott laboratory flange with groove

Vessels DN 300 or larger are provided with a technical flange type Schott. Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.



This type of vessel is provided with a bottom flange DN 15 plane type Schott

Other flanges or screw connections are also available at no extra charge.

order number informations:

The order number will be completed by the desired thermostatic connection an Bottom flange.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15, Bottom flange GL 25.

order number:

33 111 27 KF15 GL25

Hoseconnection for metal hose M16 x 1



18 840 1516

Suitable sealings

Silicone O-ring, seamless
FEP coated

Art.no. F2922515

Cap. liters	DN mm	D mm	H mm	H1 mm	Art.no.
0,1	60	65	110	50	33 106 02
0,25	60	65	160	50	33 106 04
0,5	60	65	230	50	33 106 08
0,25	100	100	130	50	33 106 06
0,5	100	100	170	50	33 106 10
1,0	100	100	230	50	33 106 13
2,0	100	150	245	50	33 106 18
3,0	100	150	300	50	33 106 24
4,0	100	150	360	50	33 106 30
1,0	120	120	200	60	33 106 15
2,0	120	120	290	60	33 106 19
3,0	120	150	310	60	33 106 25
4,0	120	150	370	60	33 106 35
5,0	120	180	340	60	33 106 43
6,0	120	180	380	60	33 106 52
10,0	120	240	390	60	33 106 61
2,0	150	150	220	50	33 106 21
3,0	150	150	280	50	33 106 27
4,0	150	150	335	50	33 106 36
5,0	150	180	330	50	33 106 45
6,0	150	180	370	50	33 106 53
10,0	150	240	370	50	33 111 64
15,0	150	240	490	50	33 106 72
20,0	150	260	535	50	33 106 81
4,0	200	200	270	70	33 106 39
5,0	200	200	310	70	33 106 48
6,0	200	200	345	70	33 106 57
10,0	200	200	470	70	33 106 66
10,0	200	240	390	70	33 106 70
10,0	200	260	350	70	33 106 71
15,0	200	260	460	70	33 106 78
20,0	200	260	550	70	33 106 87
30,0	200	300	610	70	33 106 89
20	300	300	500	100	33 106 86
25	300	300	550	100	33 106 95
30	300	300	610	100	33 106 96
50	300	340	760	100	33 106 99
50	300	375	610	100	33 106 052
50	400	400	550	100	33 106 050
100	400	460	800	100	33 106 100 OR
100	400	460	800	100	33 106 101 OR
100	450	460	800	100	33 106 102 OR
100	450	460	800	100	33 106 103 OR

Thermostatic reaction vessel with bottom valve

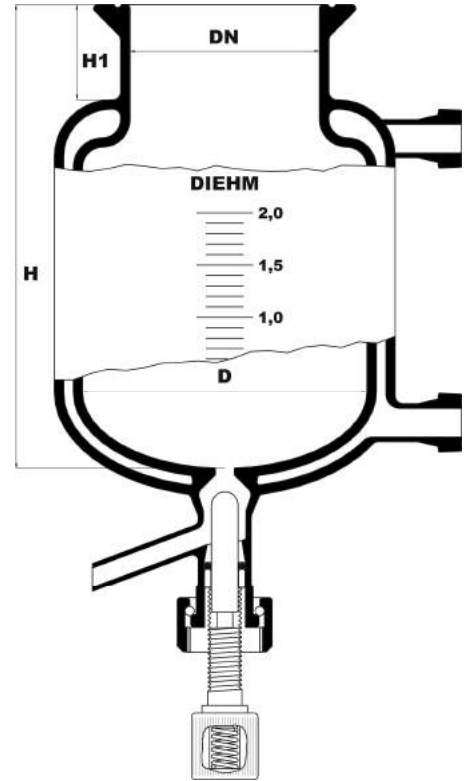
These vessels up to DN 200 are provided with a Schott laboratory flange with groove

Vessels DN 300 or larger are provided with a technical flange type Schott.

Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.



Cap. liters	DN mm	D mm	H mm	H1 mm	valve mm	Art.no.
0.1	60	65	110	50	10	33 111 02
0.25	60	65	160	50	10	33 111 04
0.5	60	65	230	50	10	33 111 08
0.25	100	100	130	50	10	33 111 06
0.5	100	100	170	50	10	33 111 10
1.0	100	100	230	50	10	33 111 13
2.0	100	150	245	50	10	33 111 18
3.0	100	150	300	50	10	33 111 24
4.0	100	150	360	50	10	33 111 30
1.0	120	120	200	60	10	33 111 15
2.0	120	120	290	60	10	33 111 19
3.0	120	150	310	60	10	33 111 25
4.0	120	150	370	60	10	33 111 35
5.0	120	180	340	60	10	33 111 43
6.0	120	180	380	60	10	33 111 52
10.0	120	240	390	60	16	33 111 61
2.0	150	150	220	50	10	33 111 21
3.0	150	150	280	50	10	33 111 27
4.0	150	150	335	50	10	33 111 36
5.0	150	180	330	50	10	33 111 45
6.0	150	180	370	50	10	33 111 53
10.0	150	230	380	50	16	33 111 63
10.0	150	240	370	50	16	33 111 64
15.0	150	240	490	50	20	33 111 72
20.0	150	260	535	50	20	33 111 81
6.0	200	200	345	70	10	33 111 57
10.0	200	230	400	70	16	33 111 69
10.0	200	240	390	70	16	33 111 70
10.0	200	260	350	70	16	33 111 71
15.0	200	260	420	70	20	33 111 78
20.0	200	260	550	70	20	33 111 87
30.0	200	300	610	70	20	33 111 89
20	300	300	500	100	20	33 111 86
25	300	300	540	100	20	33 111 95
30	300	300	610	100	25	33 111 96
50	300	340	760	100	25	33 111 99
50	300	375	610	100	25	33 111 052
50	400	400	550	100	25	33 111 050
100	400	460	800	100	25	33 111 100 OR
100	400	460	800	100	50	33 111 101 OR
100	450	460	800	100	25	33 111 102 OR
100	450	460	800	100	50	33 111 103 OR

The valve is designed so that liquid rests flow through without leaving deposits acc. **GMP**. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction. As alternative option we have 3 different stoppers for example with Pt100 sensor. All variations are available with pneumatic cylinders.

order number informations:

The order number will be completed by the desired thermostatic connection and the bottom valve.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15, bottom valve 10 mm

order number:

33 111 27 KF15 V10

Hoseconnection for hose 12mm dia.



Suitable sealings

Silicone O-ring, seamless
FEP coated

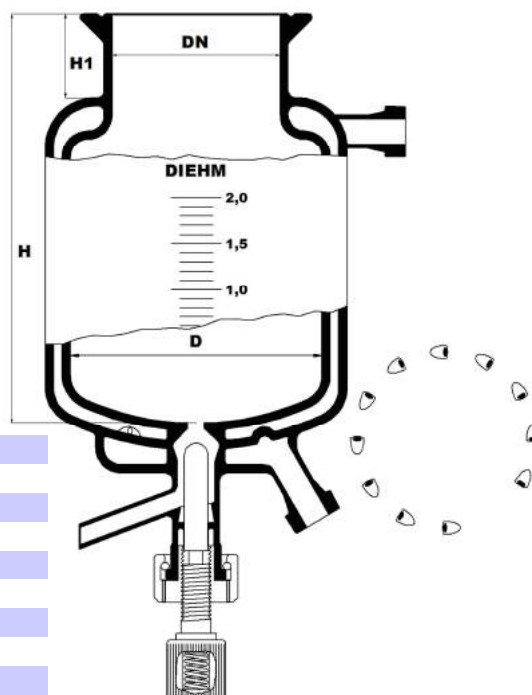
Art.no. F2922515

Special thermostatic vessel with bottom valve

These vessels up to DN 200 are provided with a Schott laboratory flange with groove
Vessels DN 300 or larger are provided with a technical flange type Schott.
Different flanges are also available

The thermostatic connections are standard DN 15 plan type Schott.

The vessels can also be provided with GL18 screw tubes and plastic hose connections 10 mm at no extra charge.



The valve is designed so that liquid rests flow through without leaving deposits acc **GMP**. It is also designed with a spring loaded stopper to prevent leakage caused by expansion and contraction. As alternative option we have 3 different stoppers for example with Pt100 sensor.
All variations are available with pneumatic cylinders.

order number informations:

The order number will be completed by the desired thermostatic connection and the bottom valve.

Example:

Vessel DN 150, 3 litre, thermostatic connection KF 15, bottom valve 10 mm

order number:

33 115 27 KF15 V10

Hoseconnection for metal hose M16 x 1

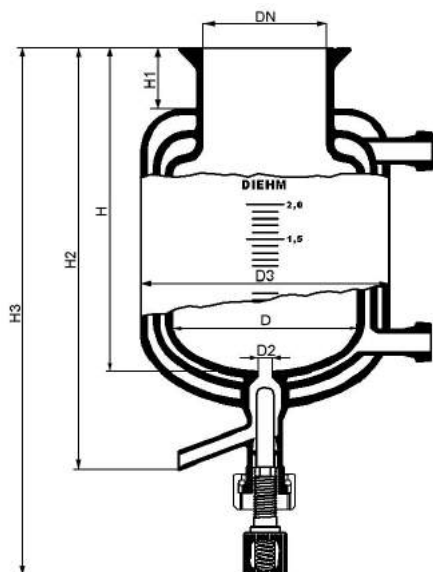


18 840 1516

Cap. liters	DN mm	D mm	H mm	H1 mm	valve mm	Art.no.
0,1	60	65	110	50	10	33 115 02
0,25	60	65	160	50	10	33 115 04
0,5	60	65	230	50	10	33 115 08
0,25	100	100	130	50	10	33 115 06
0,5	100	100	170	50	10	33 115 10
1,0	100	100	230	50	10	33 115 13
2,0	100	150	245	50	10	33 115 18
3,0	100	150	300	50	10	33 115 24
4,0	100	150	360	50	10	33 115 30
1,0	120	120	200	60	10	33 115 15
2,0	120	120	290	60	10	33 115 19
3,0	120	150	310	60	10	33 115 25
4,0	120	150	370	60	10	33 115 35
5,0	120	180	340	60	10	33 115 43
6,0	120	180	380	60	10	33 115 52
10,0	120	240	390	60	16	33 115 61
2,0	150	150	220	50	10	33 115 21
3,0	150	150	280	50	10	33 115 27
4,0	150	150	335	50	10	33 115 36
5,0	150	180	330	50	10	33 115 45
6,0	150	180	370	50	10	33 115 53
10,0	150	240	370	50	16	33 115 64
15,0	150	240	490	50	20	33 115 72
20,0	150	260	535	50	20	33 115 81
4,0	200	200	270	70	10	33 115 39
5,0	200	200	310	70	10	33 115 48
6,0	200	200	345	70	10	33 115 57
10,0	200	200	470	70	16	33 115 66
10,0	200	240	390	70	16	33 115 70
10,0	200	260	350	70	16	33 115 71
15,0	200	260	460	70	20	33 115 78
20,0	200	260	550	70	20	33 115 87
30,0	200	300	610	70	20	33 115 89
20	300	300	500	100	20	33 115 86
25	300	300	550	100	25	33 115 95
30	300	300	610	100	25	33 115 96
50	300	340	760	100	25	33 115 99
50	300	375	610	100	25	33 115 052
50	400	400	550	100	25	33 115 050
100	400	460	800	100	25	33 115 100OR
100	400	460	800	100	50	33 115 101OR
100	450	460	800	100	25	33 115 102OR
100	450	460	800	100	50	33 115 103OR

Reaction vessels with tempering jacket and vacuum jacket (triple jacket)

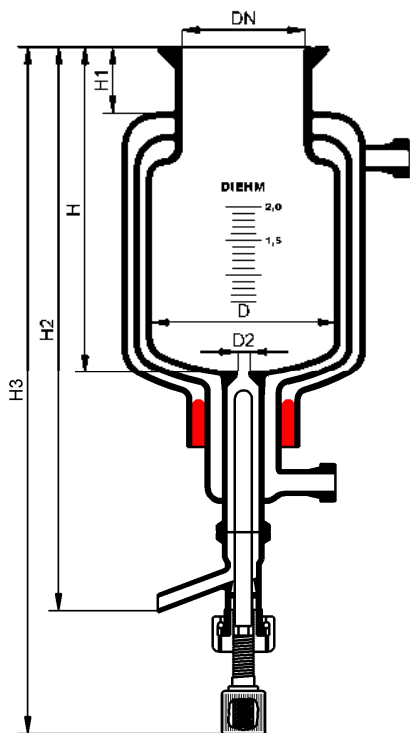
Temperature range - 20 to 60°C. Max. ΔT 40K.



Capacity litre	DN mm	DH mm	H mm	H mm	Art.no.
0,1	60	65	110	50	33 205 02 ...
0,25	60	65	160	50	33 205 04 ...
0,5	60	65	230	50	33 205 08 ...
0,5	100	100	170	50	33 205 10 ...
1,0	100	100	230	50	33 205 13 ...
2,0	100	150	245	50	33 205 18 ...
3,0	100	150	300	50	33 205 24 ...
4,0	100	150	360	50	33 205 30 ...
1,0	120	120	200	60	33 205 15 ...
2,0	120	120	290	60	33 205 19 ...
3,0	120	150	310	60	33 205 25 ...
4,0	120	150	370	60	33 205 35 ...
5,0	120	180	340	60	33 205 43 ...
6,0	120	180	380	60	33 205 52 ...
2,0	150	150	220	50	33 205 21 ...
3,0	150	150	265	50	33 205 27 ...
4,0	150	150	310	50	33 205 36 ...
5,0	150	180	330	50	33 205 45 ...
6,0	150	180	370	50	33 205 53 ...

Triplex reactors for stress free working

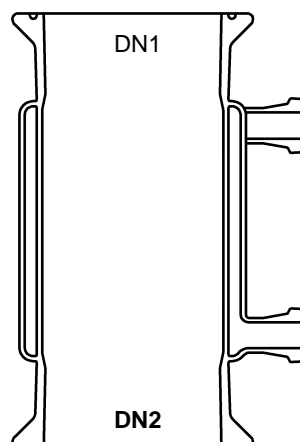
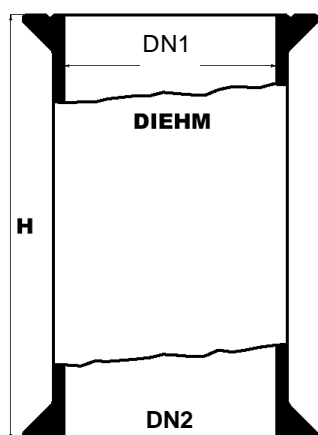
Temperature range - 90 to 200°C, other temperatures on request.
max Delta T 40 K.



Cap. liters	D mm	D mm	H mm	H1 mm	Art.no.
0.5	100	100	170	50	33 207 10 ...
1.0	100	100	230	50	33 207 13 ...
2.0	100	150	245	50	33 207 18 ...
3.0	100	150	300	50	33 207 24 ...
4.0	100	150	360	50	33 207 30 ...
1.0	120	120	200	60	33 207 15 ...
2.0	120	120	290	60	33 207 19 ...
3.0	120	150	310	60	33 207 25 ...
4.0	120	150	370	60	33 207 35 ...
5.0	120	180	340	60	33 207 43 ...
6.0	120	180	380	60	33 207 52 ...
10.0	120	240	390	60	33 207 61 ...
2.0	150	150	220	50	33 207 21 ...
3.0	150	150	265	50	33 207 27 ...
4.0	150	150	310	50	33 207 36 ...
5.0	150	180	330	50	33 207 45 ...
6.0	150	180	370	50	33 207 53 ...
10.0	150	240	380	50	33 207 70 ...
6.0	200	200	330	70	33 207 57 ...
10.0	200	200	470	70	33 207 66 ...
10.0	200	240	390	70	33 207 70 ...
10.0	200	260	350	70	33 207 71 ...
15.0	200	260	460	70	33 207 78 ...
20.0	200	260	550	70	33 207 87 ...
20.0	300	300	500	100	33 207 86 ...
30.0	300	300	610	100	33 207 96 ...
50.0	300	340	760	100	33 207 99 ...
50.0	300	375	610	100	33 207 052 ...
50.0	400	400	550	100	33 207 050 ...

Column with laboratory flange

At using laboratory flanges it is needed to keep that normally above of the column a flange with O-ring is needed and the pairing flange is without a groove. When the below end is a cap then the column needs also a groove for a O-ring below, because the caps never has a groove for a O-ring.

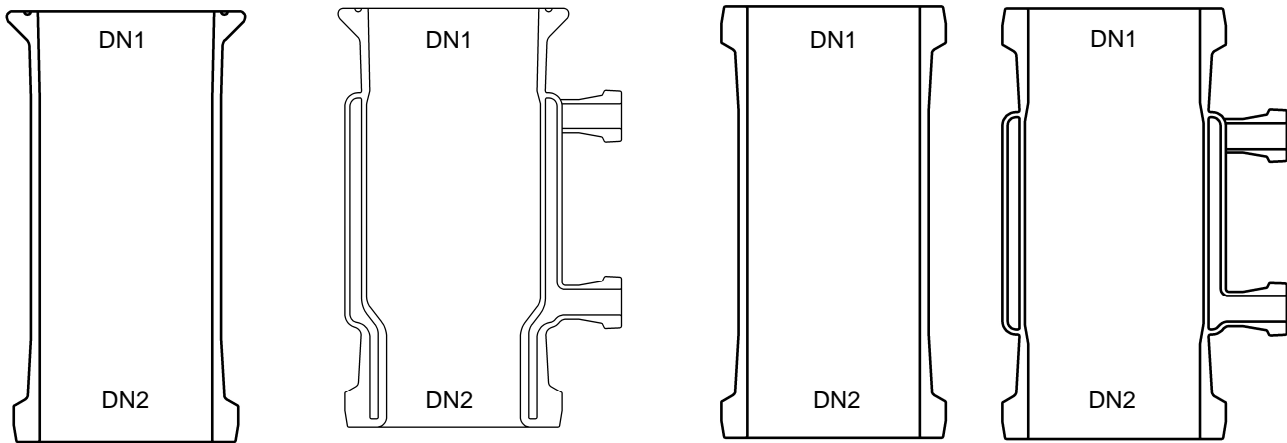


Column, above with groove, below without groove.

Columns above and below with groove.

DN mm	H mm	Article.No.	Article.No. double jacket	Article.No.	Article.No. double jacket
60	250	33 025 02 000	33 125 02 GL18	33 025 02 00N	33 128 02 GL18
60	250		33 125 02 KF15		33 128 02 KF15
60	300	33 025 04 000	33 125 04 GL18	33 025 04 00N	33 128 04 GL18
60	300		33 125 04 KF15		33 128 04 KF15
60	400	33 025 06 000	33 125 06 GL18	33 025 06 00N	33 128 06 GL18
			33 125 06 KF15		33 128 06 KF15
100	300	33 025 12 000	33 125 12 GL18	33 025 12 00N	33 128 12 GL18
			33 125 12 KF15		33 128 12 KF15
100	400	33 025 14 000	33 125 14 GL18	33 025 14 00N	33 128 14 GL18
			33 125 14 KF15		33 128 14 KF15
100	500	33 025 16 000	33 125 16 GL18	33 025 16 00N	33 128 16 GL18
			33 125 16 KF15		33 128 16 KF15
100	750	33 025 18 000	33 125 18 GL18	33 025 18 00N	33 128 18 GL18
			33 125 18 KF15		33 128 18 KF15
120	300	33 025 22 000	33 125 22 GL18	33 025 22 00N	33 128 22 GL18
			33 125 22 KF15		33 128 22 KF15
120	400	33 025 24 000	33 125 24 GL18	33 025 24 00N	33 128 24 GL18
			33 125 24 KF15		33 128 24 KF15
120	500	33 025 26 000	33 125 26 GL18	33 025 26 00N	33 128 26 GL18
			33 125 26 KF15		33 128 26 KF15
120	750	33 025 28 000	33 125 28 GL18	33 025 28 00N	33 128 28 GL18
			33 125 28 KF15		33 128 28 KF15
150	300	33 025 32 000	33 125 32 GL18	33 025 32 00N	33 128 32 GL18
			33 125 32 KF15		33 128 32 KF15
150	400	33 025 34 000	33 125 34 GL18	33 025 34 00N	33 128 34 GL18
			33 125 34 FK15		33 128 34 FK15
150	500	33 025 36 000	33 125 36 GL18	33 025 36 00N	33 128 36 GL18
			33 125 36 KF15		33 128 36 KF15
150	750	33 025 38 000	33 125 38 GL18	33 025 38 00N	33 128 38 GL18
			33 125 38 KF15		33 128 38 KF15
200	400	33 025 42 000	33 125 42KF15	33 025 42 00N	33 128 42 KF15
200	500	33 025 44 000	33 125 44KF15	33 025 44 00N	33 128 44 KF15
200	600	33 025 46 000	33 125 46KF15	33 025 46 00N	33 128 46 KF15
200	750	33 025 48 000	33 125 48KF15	33 025 48 00N	33 128 48 KF15

Columns for filter reactors



Columns, above laboratory flange with groove, below technical flange.

Column, above and below with technical flange

DN1	DN2	H mm	Article no.:	Article no.:	Article no.	Article no.
				double jacket		double jacket
60	60	100	33 025 01 OLT	33 127 01 GL18		
60	60	150	33 025 02 OLT	33 127 02 GL18		
60	60	250	33 025 04 OLT	33 127 04 GL18		
100	100	300	33 025 12 OLT	33 127 12 GL18	33 025 12 OTT	33 126 12 GL18
100	100	300		33 127 12 KF15		33 126 12 KF15
100	100	400	33 025 14 OLT	33 127 14 GL18	33 025 14 OTT	33 126 14 GL18
100	100	400		33 127 14 KF15		33 126 14 KF15
100	100	500	33 025 16 OLT	33 127 16 GL18	33 025 16 OTT	33 126 16 GL18
100	100	500		33 127 16 KF15		33 126 16 KF15
100	100	750	33 025 18 OLT	33 127 18 GL18	33 025 18 OTT	33 126 18 GL18
100	100	750		33 127 18 KF15		33 126 18 KF15
150	150	300	33 025 32 OLT	33 127 32 GL18	33 025 32 OTT	33 126 32 GL18
150	150	300		33 127 32 KF15		33 126 32 KF15
150	150	400	33 025 34 OLT	33 127 34 GL18	33 025 34 OTT	33 126 34 GL18
150	150	400		33 127 34 KF15		33 126 34 KF15
150	150	500	33 025 36 OLT	33 127 36 GL18	33 025 36 OTT	33 126 36 GL18
150	150	500		33 127 36 KF15		33 126 36 KF15
150	150	750	33 025 38 OLT	33 127 38 GL18	33 025 38 OTT	33 126 38 GL18
150	150	750		33 125 38 KF15		33 126 38 KF15
200	150	400		33 127 42 KF15		33 126 42 KF15
200	150	500		33 127 44 KF15		33 126 44 KF15
200	150	600		33 127 46 KF15		33 126 46 KF15
200	150	750		33 127 48 KF15		33 126 48 KF1
200	200	400	33 025 42 OLT		33 025 42 OTT	33 126 42 KF15
200	200	500	33 025 44 OLT		33 025 44 OTT	33 126 44 KF15
200	200	600	33 025 46 OLT		33 025 46 OTT	33 126 46 KF15
200	200	750	33 025 48 OLT		33 025 48 OTT	33 126 48 KF15
300	300	500			33 025 52 000	33 126 52 KF15
300	300	600			33 025 54 000	33 126 54 KF15
300	300	800			33 025 56 000	33 126 56 KF15
300	300	1000			33 025 58 000	33 126 58 KF15
400	400	400			33 025 64 000	
400	400	500				33 126 65 KF25
400	400	500			33 025 65 000	
400	400	600			33 025 66 000	
400	400	800			33 025 67 000	
400	400	1000			33 025 68 000	
450	450	400			33 025 74 000	
450	450	500			33 025 75 000	
450	450	600			33 025 76 000	
450	450	800			33 025 77 000	
450	450	1000			33 025 78 000	

Glass filter plates to press between two technical flanges

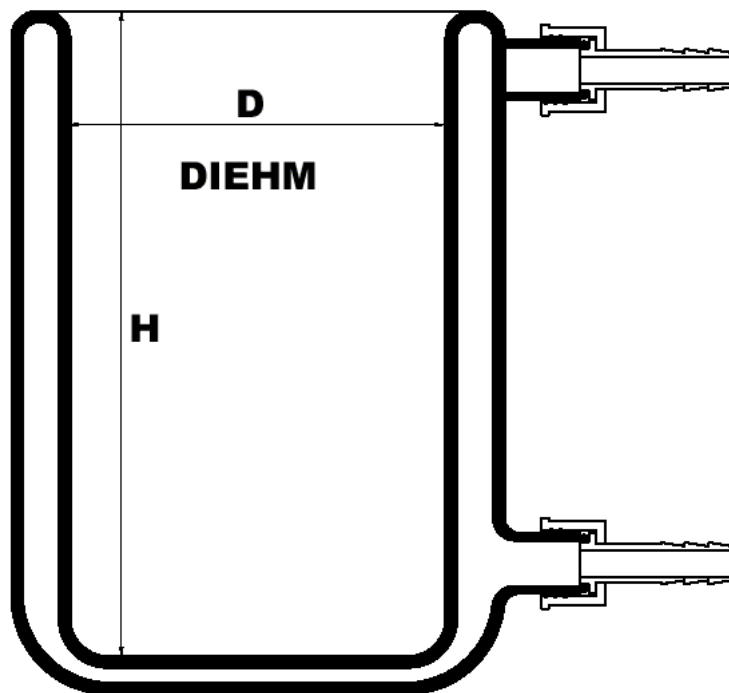
DN	Porosity pore dia	Typ	Article.No.
100	160-250 μ	Por. 0	33 027 100
100	100-160 μ	Por. 1	33 027 101
100	40-1000 μ	Por. 2	33 027 102
100	16-40 μ	Por. 3	33 027 103
100	10-16 μ	Por. 4	33 027 104
150	160-250 μ	Por. 0	33 027 150
150	100-160 μ	Por. 1	33 027 151
150	40-1000 μ	Por. 2	33 027 152
150	16-40 μ	Por. 3	33 027 153
150	10-16 μ	Por. 4	33 027 154
200	160-250 μ	Por. 0	33 027 200
200	100-160 μ	Por. 1	33 027 201
200	40-1000 μ	Por. 2	33 027 202
200	16-40 μ	Por. 0	33 027 203
200	10-16 μ	Por. 4	33 027 204
300	160-250 μ	Por. 0	33 027 300
300	100-160 μ	Por. 1	33 027 301
300	40-1000 μ	Por. 2	33 027 302
300	16-40 μ	Por. 0	33 027 303
200	10-16 μ	Por. 4	33 027 204
400	160-250 μ	Por. 0	33 027 400
400	100-160 μ	Por. 1	33 027 401
400	40-1000 μ	Por. 2	33 027 402
400	16-40 μ	Por. 0	33 027 403
400	10-16 μ	Por. 4	33 027 404

Changable filter discs pressed in special PTFE sealings



Thermostatic beaker

Thermostatic beaker with screw connections and plastic hose connections.



Cap. liter	D mm	H mm	Art.no.
0.1	60	70	33 302 02
0.25	60	120	33 302 04
0.5	60	210	33 302 08
1,0	100	170	33 302 13
2,0	100	290	33 302 18
2.0	120	205	33 302 19
3.0	120	295	33 302 25
3.0	150	205	33 302 27
4.0	150	260	33 302 33
5.0	150	365	33 302 42
6.0	150	390	33 302 51
10.0	230	400	33 302 66
15.0	260	460	33 302 75
20.0	260	550	33 302 84

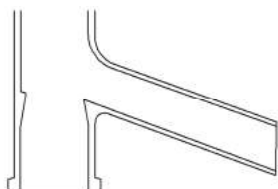
bottom valve 16 mm



Pneumatic bottom valve



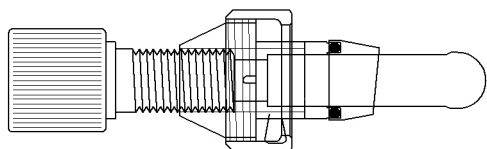
Valve spare parts



Glaspart

Article No

	10 mm	16 mm	20 mm	25 mm
Article No	1891001	1891601	1892001	1892501



For standard applications without solid particles and crystals.

Standard valve tape complete

for standard reactors type 33004../33111..

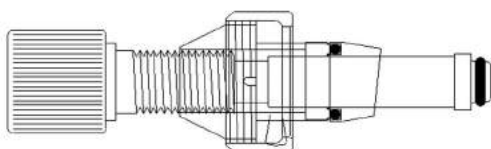
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891002	1891602	1892002	1892502

for threeplex reactors type 33205..

Article no.:	1891002.205	1891602.205		
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for threeplex reactors type 33206..

Article no.:		1891602.206	1892002.206	1892502.206
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For standard applications with solid particles and crystals high resistant for chemicals and temperatures.

Valve tape complete with O-ring made of Perfluorelastomere

for standard reactors type 33004../33111..

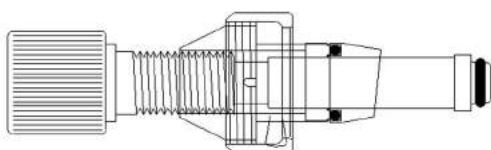
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891003	1891603	1892003	1892503

for threeplex reactors type 33205..

Article no.:	1891003.205	1891603.205		
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for threeplex reactors type 33206..

Article no.:		1891603.206	1892003.206	1892503.206
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For standard applications with solid particles and crystals middle resistant for chemicals and temperatures

Valve tape complete with O-ring made of Viton

for standard reactors type 33004../33111..

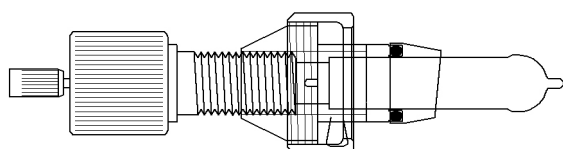
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891004	1891604	1892004	1892504

for threeplex reactors type 33205..

Article no.:	1891004.205	1891604.205		
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for threeplex reactors type 33206..

Article no.:		1891604.206	1892004.206	1892504.206
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For standard applications without solid particles and crystals. The Pt 100 probe is slower as a glass probe from top and not so exact.

Valve tape complete with Pt 100 sensor

for standard reactors type 33004../33111..

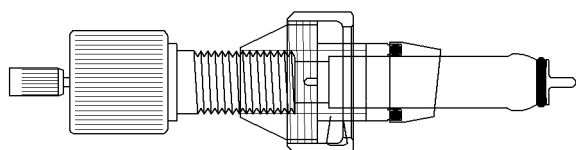
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891005	1891605	1892005	1892505

for threeplex reactors type 33205..

Article no.:	1891005.205	1891605.205		
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for threeplex reactors type 33206..

Article no.:		1891605.206	1892005.206	1892505.206
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For standard applications with solid particles and crystals high resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact.

Valve tape complete with Pt 100 sensor and O-ring made of Perfluorelastomere

for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891007	1891607	1892007	1892507

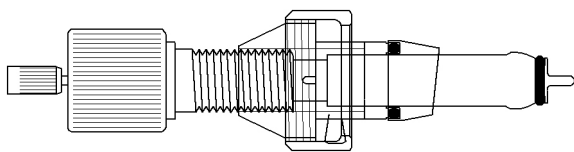
for threeplex reactors type 33205..

Article no.:	1891007.205	1891607.205		
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for threeplex reactors type 33206..

Article no.:		1891607.206	1892007.206	1892507.206
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Valve spare parts



For standard applications with solid particles and crystals middle resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact.

Valve tape complete with Pt 100 sensor and O-ring made of Viton

for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891008	1891608	1892008	1892508

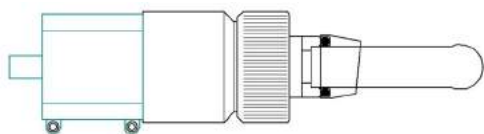
for threeplex reactors type 33205..

Article no.:	1891008.205	1891608.205
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for threeplex reactors type 33206..

Article no.:	1891608.206	1892008.206	1892508.206
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Pneumatical valves



For standard applications without solid particles and crystals.

Standard valve tape complete

for standard reactors type 33004../33111..

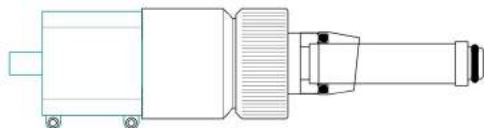
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891062	1891662	1892062	1892562

for threeplex reactors type 33205..

Article no.:	1891062.205	1891662.205
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for threeplex reactors type 33206..

Article no.:	1891662.206	1892062.206	1892562.206
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For standard applications with solid particles and crystals high resistant for chemicals and temperatures.

Valve tape complete with O-ring made of Perfluorelastomere

for standard reactors type 33004../33111..

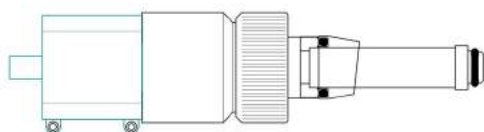
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891063	1891663	1892063	1892563

for threeplex reactors type 33205..

Article no.:	1891063.205	1891663.205
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for threeplex reactors type 33206..

Article no.:	1891663.206	1892063.206	1892563.206
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For standard applications with solid particles and crystals middle resistant for chemicals and temperatures.

Valve tape complete with Pt 100 sensor and O-ring made of Viton

for standard reactors type 33004../33111..

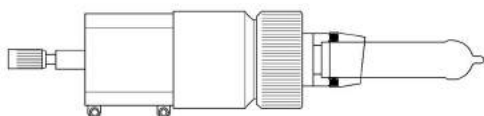
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891064	1891664	1892064	1892564

for threeplex reactors type 33205..

Article no.:	1891064.205	1891664.205
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for threeplex reactors type 33206..

Article no.:	1891664.206	1892064.206	1892564.206
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For standard applications without solid particles and crystals. The Pt 100 probe is slower as a glass probe from top and not so exact.

Valve tape complete with Pt 100 sensor

for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891065	1891665	1892065	1892565

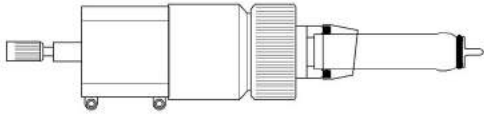
for threeplex reactors type 33205..

Article no.:	1891065.205	1891665.205
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for threeplex reactors type 33206..

Article no.:	1891665.206	1892065.206	1892565.206
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Valve spare parts



For standard applications with solid particles and crystals high resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact.

Valve tape complete with Pt 100 sensor and O-ring made of Perfluorelastomere

for standard reactors type 33004../33111..

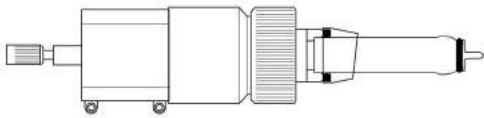
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891067	1891667	1892067	1892567

for threeplex reactors type 33205..

Article no.:	1891067.205	1891667.205
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for threeplex reactors type 33206..

Article no.:	1891667.206	1892067.206	1892567.206
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For standard applications with solid particles and crystals middle resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact

Valve tape complete with Pt 100 sensor and O-ring made of Viton

for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891068	1891668	1892068	1892568

for threeplex reactors type 33205..

Article no.:	1891068.205	1891668.205
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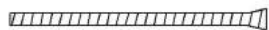
for threeplex reactors type 33206..

Article no.:	1891068.206	1891668.206	1892068.206	1892568.206
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Piece parts



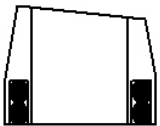
Articles	Sizes	10 mm	16 mm	20 mm	25 mm
Back nut		1891011	1891611	1892011	1892511



Deposit spring		1891012	1891612	1892012	1892512
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Valve seal					
Perfluorelastomere		1891026	1891626	1892026	1892526
Viton		1891027	1891627	1892027	1892527



Conical seal compl.		1891021	1891621	1892020	1892520
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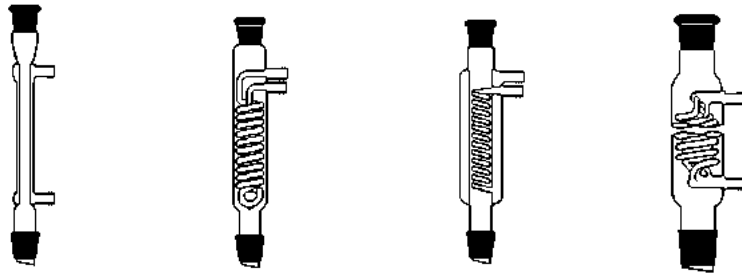


PTFE plug standard		1891031	1891631	1892031	1892531
for type 33205..	1891031.205		1891631.205	1892031.205	1892531.205
for type 33206..			1891631.206	1892031.206	1892531.206



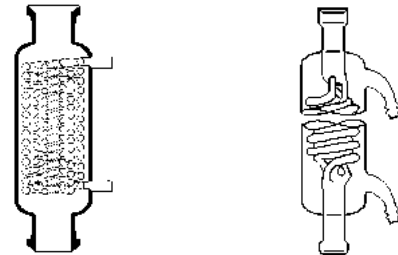
PTFE plug with groove		1891032	1891632	1892032	1892532
type 205	1891032.205		1891632.205	1892032.205	1892532.205
for type 33206..			1891632.206	1892032.206	1892532.206

Coolers

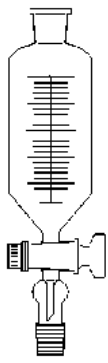


Working length	NS	Liebig condenser	Dimroth cooler	Intense cooler	High-efficiency-c.	
		Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
200	14,5/23	21 120 08		21 141 08	21 160 08	
300	14,5/23	21 120 12		21 141 12	21 160 12	
400	14,5/23	21 120 14			21 160 14	
200	18,8/26	21 120 22			21 160 22	
300	18,8/26	21 120 26			21 160 26	
400	18,8/26	21 120 28			21 160 28	
200	24/29	21 120 36			21 160 36	
300	24/29	21 120 40			21 160 40	
400	24/29	21 120 42			21 160 42	
200	29,2/32	21 120 48			21 160 48	
250	29,2/32	21 120 50		21 141 50	21 160 50	
300	29,2/32	21 120 52		21 141 52	21 160 52	
400	29,2/32	21 120 54		21 141 54	21 160 54	
0,2m ²	45/40					21 200 55
250	45/40			21 141 66	21 160 66	
0,3m ²	45/40					21 200 68
300	45/40			21 141 68	21 160 68	
400	45/40			21 141 70	21 160 70	

High-efficiency coolers



DN	cooling area m ²	Fitting length	Water connectors	Cooler Art.no.	Product cooler Art.no.
25	0,2	570	GL 18	21 240 25	
40	0,2	570	GL 18	21 240 40	
50	0,2	570	GL 18	21 240 50	
15	0,2	350	GL 18		21 281 15
25	0,2	350	GL 18	21 243 25	
40	0,2	350	GL 18	21 243 40	
50	0,2	350	GL 18	21 243 50	
80	0,2	350	GL 18	21 243 80	
100	0,2	350	GL 18	21 243 100	
25	0,3	450	GL 18	21 245 25	21 281 25
40	0,3	450	GL 18	21 245 40	
50	0,3	450	GL 18	21 245 50	
80	0,3	450	GL 18	21 245 80	
100	0,3	450	GL 18	21 245 100	
50	0,6	725	GL 18	21 249 50	
80	0,6	725	GL 18	21 249 80	
100	0,6	725	GL 18	21 249 100	
50	0,6	500	GL 18	21 250 50	
80	0,6	500	GL 18	21 250 80	
100	0,6	500	GL 18	21 250 100	
150	0,6	500	GL 18	21 250 150	
150	1,0	700	GL 18	21 261 150	

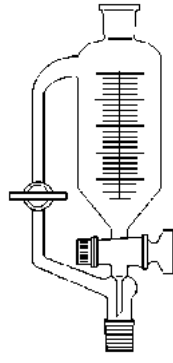


Cylinder-shaped dropping funnel

with melt-in drop pin and massive standard ground joint glass plug
21 120 **

Alternatively with polished tap and plug made of PTFE **25 121 ****

Alternatively with glass tap and hollow glass plug **25 123 ****



Dropping funnel with pressure compensation

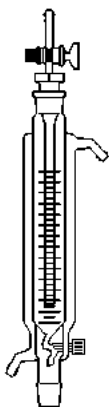
with melt-in drop pin and massive standard ground joint glass plug
25 125 **

Alternatively with polished tap and plug made of PTFE **21 127 ****

Alternatively with glass tap and hollow glass plug **25 129 ****

Cap.	Bushing/Core	Spacing	Boring	Art.no.
50	14,5/23	1,0	3	25 120 08
100	14,5/23	2,0	3	25 120 10
250	14,5/23	5,0	4	25 120 12
500	14,5/23	10,0	4	25 120 14
50	18,8/26	1,0	3	25 120 18
100	18,8/26	2,0	3	25 120 20
250	18,8/26	5,0	4	25 120 22
500	18,8/26	10,0	4	25 120 24
50	29,2/32	1,0	3	25 120 38
100	29,2/32	2,0	3	25 120 40
250	29,2/32	5,0	4	25 120 42
500	29,2/32	10,0	4	25 120 44
1000	29,2/32	20,0	6	25 120 46
2000	29,2/32	50,0	6	25 120 48

Cap.	Bushing/Core	Spacing	Boring	Art.no.
50	14,5/23	1,0	3	25 125 08
100	14,5/23	2,0	3	25 125 10
250	14,5/23	5,0	4	25 125 12
500	14,5/23	10,0	4	25 125 14
50	18,8/26	1,0	3	25 125 18
100	18,8/26	2,0	3	25 125 20
250	18,8/26	5,0	4	25 125 22
500	18,8/26	10,0	4	25 125 24
50	29,2/32	1,0	3	25 125 38
100	29,2/32	2,0	3	25 125 40
250	29,2/32	5,0	4	25 125 42
500	29,2/32	10,0	4	25 125 44
1000	29,2/32	20,0	6	25 125 46
2000	29,2/32	50,0	6	25 125 48

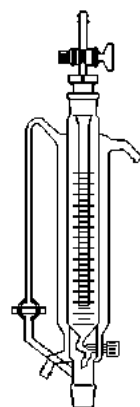


Proportioning funnel

cylinder-shaped, graduated, with PTFE needle valve

without tempering jacket **25 620 ****

Alternatively with temp. jacket **25 625 ****



Proportioning funnel

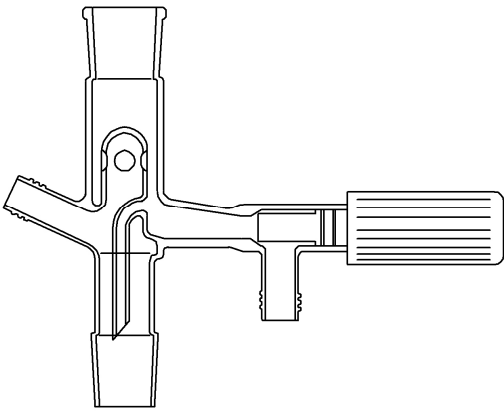
cylinder-shaped, with pressure compensation, graduated, with PTFE needle valve

without tempering jacket **25 623 ****

Alternatively with temp. jacket **25 628 ****

Cap.	Bushing/Core	Spacing	Boring	Art.no.
50	14,5/23	1,0	0-6	25 620 08
100	14,5/23	2,0	0-6	25 660 10
250	14,5/23	5,0	0-6	25 626 12
500	14,5/23	10,0	0-6	25 620 14
50	18,8/26	1,0	0-6	25 620 18
100	18,8/26	2,0	0-6	25 620 20
250	18,8/26	5,0	0-6	25 620 22
500	18,8/26	10,0	0-6	25 620 24
50	29,2/32	1,0	0-6	25 620 38
100	29,2/32	2,0	0-6	25 620 40
250	29,2/32	5,0	0-6	25 620 42
500	29,2/32	10,0	0-6	25 620 44
1000	29,2/32	20,0	0-6	25 620 46
2000	29,2/32	50,0	0-6	25 620 48

Cap.	Bushing/Core	Spacing	Boring	Art.no.
50	14,5/23	1,0	0-6	25 623 08
100	14,5/23	2,0	0-6	25 663 10
250	14,5/23	5,0	0-6	25 623 12
500	14,5/23	10,0	0-6	25 623 14
50	18,8/26	1,0	0-6	25 623 18
100	18,8/26	2,0	0-6	25 623 20
250	18,8/26	5,0	0-6	25 623 22
500	18,8/26	10,0	0-6	25 623 24
50	29,2/32	1,0	0-6	25 623 38
100	29,2/32	2,0	0-6	25 623 40
250	29,2/32	5,0	0-6	25 623 42
500	29,2/32	10,0	0-6	25 623 44
1000	29,2/32	20,0	0-6	25 623 46
2000	29,2/32	50,0	0-6	25 623 48



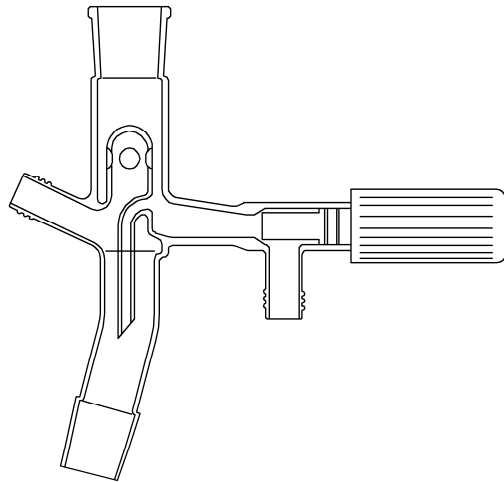
Liquid divider

with PTFE-
valve

NS	Art. no.
29,2/32	50 000 20
45/40	50 000 30

vacuum jacketed and silvered

29,2/32	50 002 20
45/50	50 002 30



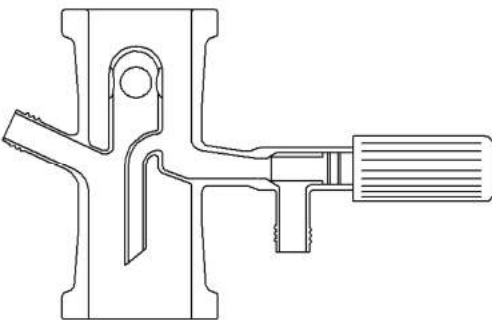
liquid divider 15°

with PTFE-
valve

NS	Art. no.
29,2/32	50 004 20
45/40	50 004 30

vacuum jacketed and silvered

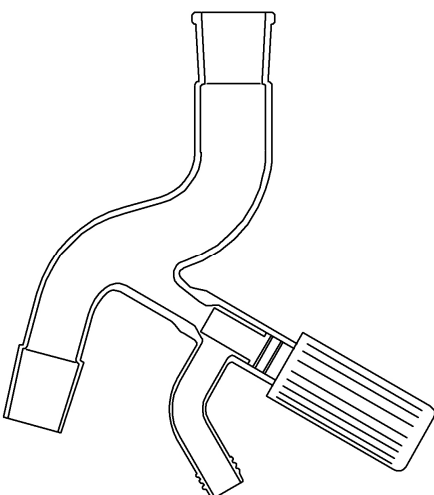
29,2/32	50 006 20
45/50	50 006 30



liquid divider KF

with PTFE-
valve

NS	Art. no.
25	50 008 20
40	50 008 30
50	50 008 40
80	50 008 50
100	50 008 60
150	50 008 70
200	50 008 80
300	50 008 90



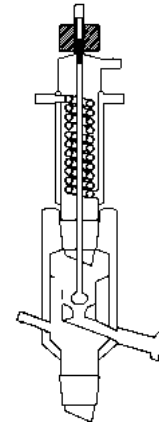
Liquid divider 15° angled

with PTFE
valve

NS	Art.no
14,5/23	50 010 10
29,2/32	50 010 20
45/40	50 010 30

Reflux divider for small quantities

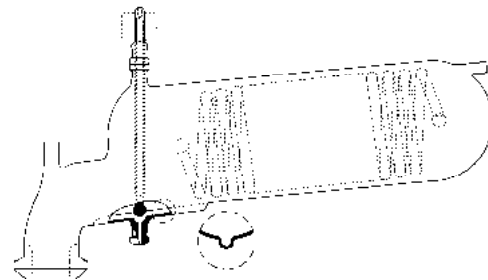
Reflux divider with inside liquid separator and deadvolume-free discharge of the medium. In case of low volume flow these column heads enable a very precise condensate separation.



NS	Art.no.	
14,5/23	50 011 10	without vacuum jacket
29,2/32	50 011 20	
45/40	50 011 30	
14,5 / 23	50 013 10	with vacuum jacket
29,2/32	50 013 20	
45/40	50 013 30	
14,5/23	50 017 10	with silvered vacuum jacket
29,2/32	50 017 20	
45/40	50 017 30	

Reflux divider with low overall height

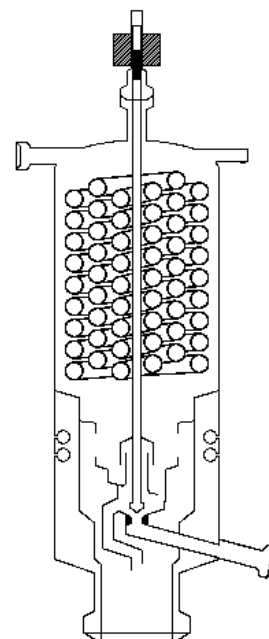
DN	Art.no.	m ²	
40	50 030 30	0,2	with high-efficiency cooler
50	50 030 40	0,2	
80	50 030 50	0,6	
100	50 030 60	0,9	
150	50 030 70	2*0,75	
40	50 031 30	0,3	with jacketed high-efficiency cooler
50	50 031 40	0,3	
80	50 031 50	0,75	



Standing reflux divider for larger quantities

DN	Art.no.	m ²
without vacuum jacket		
40	50 050 30	0,2
50	50 050 40	0,2
80	50 050 50	0,6
100	50 050 60	0,6
150	50 050 70	0,75
200	50 050 80	1,5
300	50 050 90	2,5
with vacuum jacket		
40	50 053 30	0,2
50	50 053 40	0,2
80	50 053 50	0,6
100	50 053 60	0,6
150	50 053 70	0,75
200	50 053 80	1,5
300	50 053 90	2,5
with silvered vacuum jacket		
40	50 057 30	0,2
50	50 057 40	0,2
80	50 057 50	0,6
100	50 057 60	0,6
150	50 057 70	0,75
200	50 057 80	1,5
300	50 057 90	2,5

DN	Art.no.	m ²
with silvered vacuum jacket and jacketed condenser		
40	50 058 30	0,3
50	50 058 40	0,3
80	50 058 50	0,75
100	50 058 60	0,75
150	50 058 70	0,9
200	50 058 80	1,7
300	50 058 90	2,8



Magnetic valve

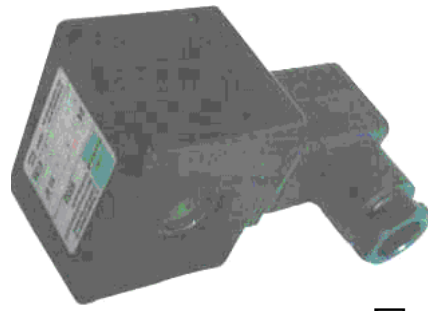
24 V DC with coupling, without cable

50 600 01

with cable and

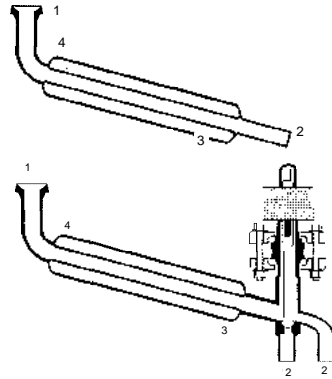
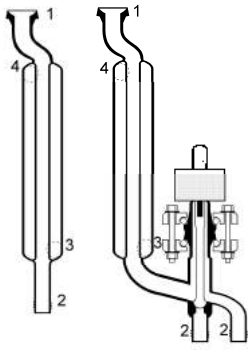
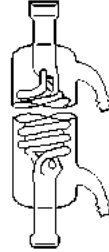
plug

50 600 02



Product cooler for high quantities

DN	surface m ²	length mm	connections for cooling water	Art.no.
15	0,2	350	GL 18	21 281 15
25	0,3	450	GL 18	21 281 25



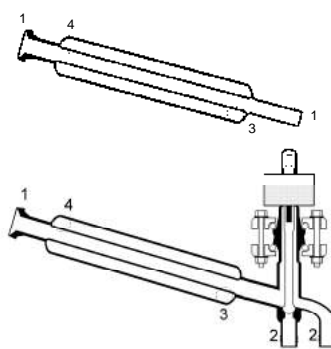
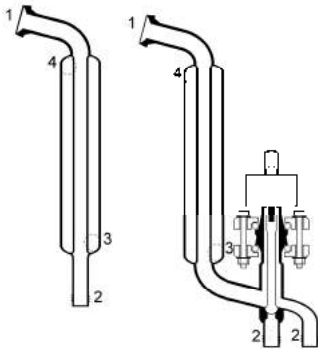
cooling surface cm² Art.no.

standing with valve

80	21 122 00
80	21 122 05

laying with valve

80	21 122 11
80	21 122 15



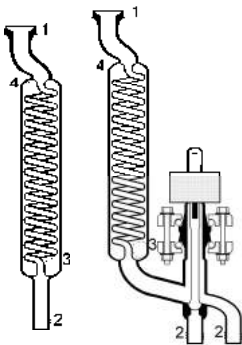
cooling surface cm² Art.no.

standing with valve

80	21 122 40
80	21 122 45

laying with valve

80	21 122 50
80	21 122 55



cooling surface cm² Art.no.

standing

230	21 122 20
2000	21 122 23
3000	21 122 25

with valve

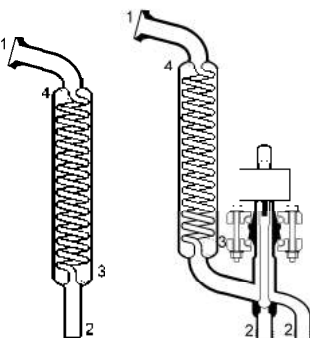
230	21 122 30
2000	21 122 33
3000	21 122 35

definition

1 = socket 15/2
2,3,4 = GL 18 screw

The valve has a magnetic valve 24 V DC

Other voltages are possible.



cooling surface cm² Art.no.

standing

230	21 122 60
2000	21 122 63
3000	21 122 65

with valve

230	21 122 70
2000	21 122 73
3000	21 122 75

Vigreux-columns with ground joints



NS	active length mm	identations	iø	Art.no.
14/23	200	44	15	50 201 111
14/23	300	64	15	50 201 113
24/29	300	64	25	50 201 123
24/29	600	124	25	50 201 126
29/32	300	64	25	50 201 133
29/32	600	124	25	50 201 136
29/32	800	164	25	50 201 138



with vacuum jacket	silvered vacuum jacket with window
50 202 111	50 203 111
50 202 113	50 203 113
50 202 123	50 203 123
50 202 126	50 203 126
50 202 133	50 203 133
50 202 136	50 203 136
50 202 138	50 203 138

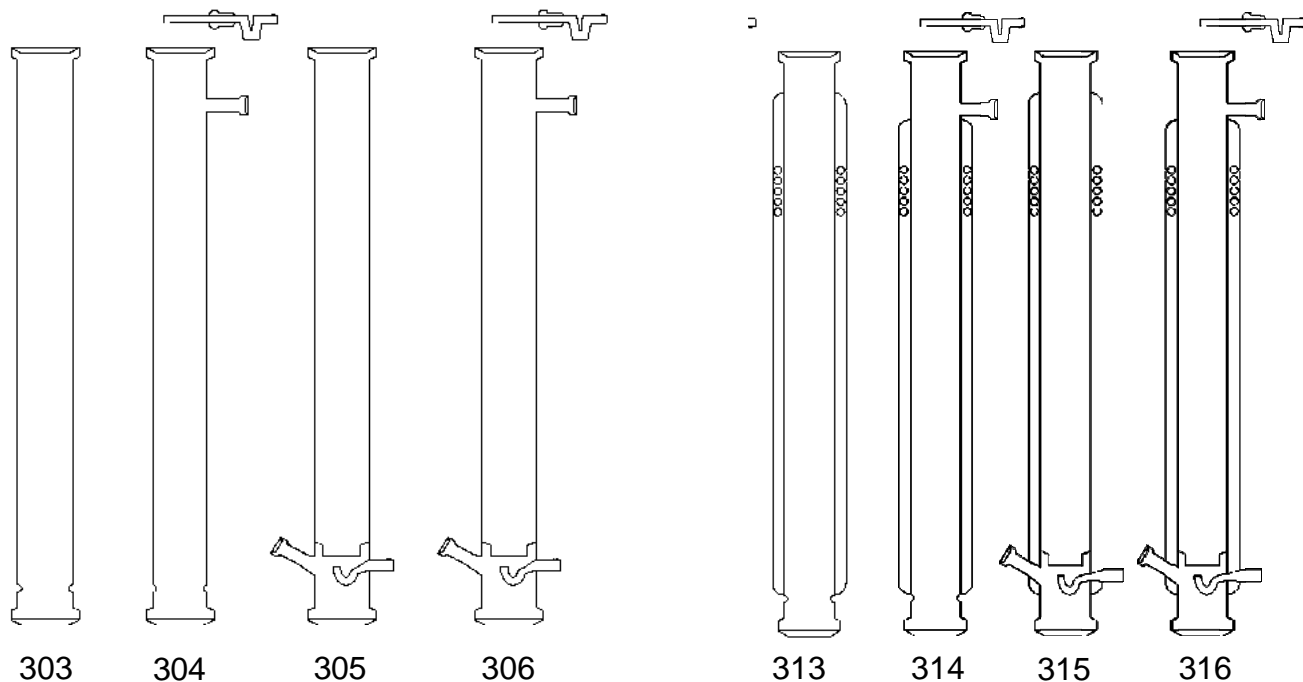
Packed columns with ground joints



NS	active length mm	iø	Art.no.
14/23	200	15	50 301 110
14/23	300	15	50 301 120
14/23	200	20	50 301 211
14/23	300	20	50 301 221
24/29	200	20	50 301 411
24/29	300	20	50 301 421
24/29	400	20	50 301 431
24/29	300	25	50 301 422
24/29	400	25	50 301 432
24/29	600	25	50 301 452
24/29	800	25	50 301 462
29/32	300	25	50 301 222
29/32	400	25	50 301 232
29/32	600	25	50 301 252
29/32	800	25	50 301 262
29/32	400	30	50 301 233
29/32	600	30	50 301 253
29/32	800	30	50 301 263
45/40	400	30	50 301 333
45/40	600	30	50 301 353
45/40	800	30	50 301 363
45/40	400	35	50 301 334
45/40	600	35	50 301 354
45/40	800	35	50 301 364
45/40	400	40	50 301 335
45/40	600	40	50 301 355
45/40	800	40	50 301 365



with vacuum jacket	silvered vacuum jacket with window
50 311 110	50 321 110
50 311 120	50 321 120
50 311 211	50 321 211
50 311 221	50 321 221
50 311 411	50 321 411
50 311 421	50 321 421
50 311 431	50 321 431
50 311 422	50 321 422
50 311 432	50 321 432
50 311 452	50 321 452
50 311 462	50 321 462
50 311 222	50 321 222
50 311 232	50 321 232
50 311 252	50 321 252
50 311 262	50 321 262
50 311 233	50 321 233
50 311 253	50 321 253
50 311 263	50 321 263
50 311 333	50 321 333
50 311 353	50 321 353
50 311 363	50 321 363
50 311 334	50 321 334
50 311 354	50 321 354
50 311 364	50 321 364
50 311 335	50 321 335
50 311 355	50 321 355
50 311 365	50 321 365



Columns for packings and packing towers

Carrying baskets are available as auxiliaries

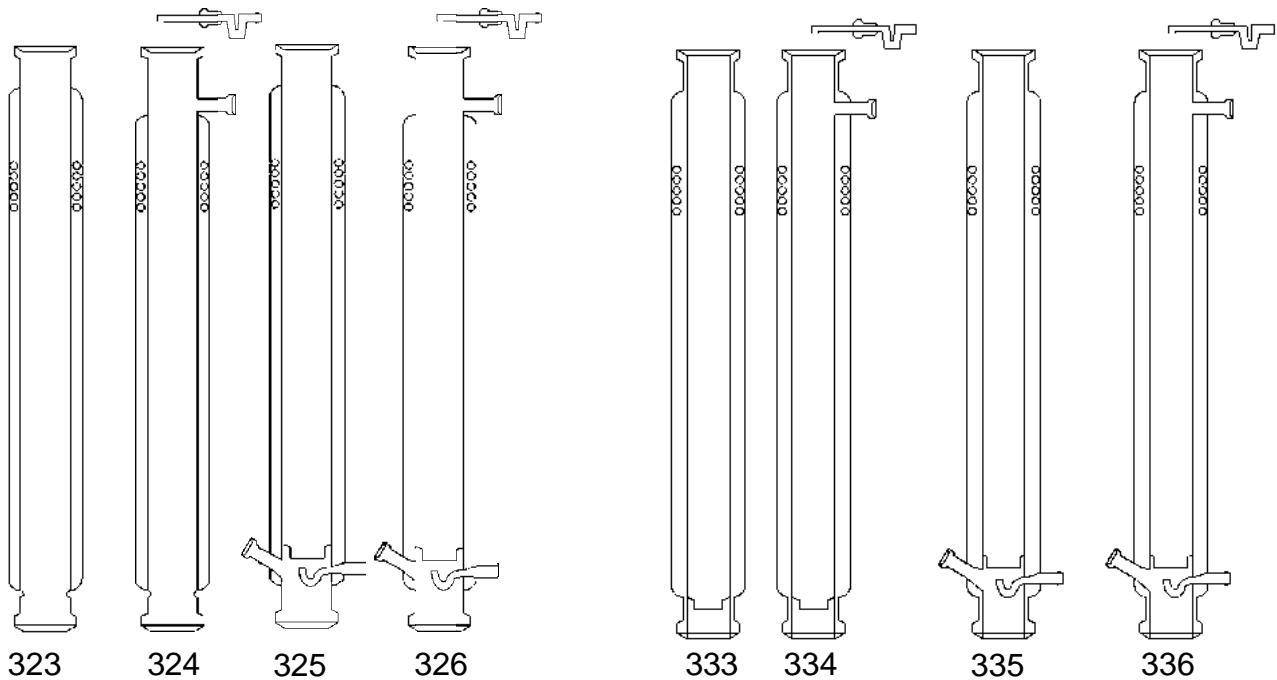
DN	iø	Working length in mm	Column	with inlet nozzle above	with inlet nozzle and temperature measuring nozzle below	with inlet nozzle and temperature measuring nozzle above	with vacuum jacket	with vacuum jacket and inlet nozzle above	with vacuum jacket, inlet nozzle, and temperature measuring nozzle below	with vacuum jacket, inlet nozzle and temperature measuring nozzle above
				50 303 420	50 304 420	50 305 420	50 306 420	50 313 420	50 314 420	50 315 420
50	43	300	50 303 420	50 304 420	50 305 420	50 306 420	50 313 420	50 314 420	50 315 420	50 316 420
50	50	300	50 303 421	50 304 421	50 305 421	50 306 421	50 313 421	50 314 421	50 315 421	50 316 421
50	43	500	50 303 440	50 304 440	50 305 440	50 306 440	50 313 440	50 314 440	50 315 440	50 316 440
50	50	500	50 303 441	50 304 441	50 305 441	50 306 441	50 313 441	50 314 441	50 315 441	50 316 441
50	43	750	50 303 460	50 304 460	50 305 460	50 306 460	50 313 460	50 314 460	50 315 460	50 316 460
50	50	750	50 303 461	50 304 461	50 305 461	50 306 461	50 313 461	50 314 461	50 315 461	50 316 461
50	43	1000	50 303 470	50 304 470	50 305 470	50 306 470	50 313 470	50 314 470	50 315 470	50 316 470
50	50	1000	50 303 471	50 304 471	50 305 471	50 306 471	50 313 471	50 314 471	50 315 471	50 316 471
50	43	1250	50 303 480	50 304 480	50 305 480	50 306 480	50 313 480	50 314 480	50 315 480	50 316 480
50	50	1250	50 303 481	50 304 481	50 305 481	50 306 481	50 313 481	50 314 481	50 315 481	50 316 481
50	43	1500	50 303 490	50 304 490	50 305 490	50 306 490	50 313 490	50 314 490	50 315 490	50 316 490
50	50	1500	50 303 491	50 304 491	50 305 491	50 306 491	50 313 491	50 314 491	50 315 491	50 316 491
80	70	300	50 303 520	50 304 520	50 305 520	50 306 520	50 313 520	50 314 520	50 315 520	50 316 520
80	80	300	50 303 521	50 304 521	50 305 521	50 306 521	50 313 521	50 314 521	50 315 521	50 316 521
80	70	500	50 303 540	50 304 540	50 305 540	50 306 540	50 313 540	50 314 540	50 315 540	50 316 540
80	80	500	50 303 541	50 304 541	50 305 541	50 306 541	50 313 541	50 314 541	50 315 541	50 316 541
80	70	750	50 303 560	50 304 560	50 305 560	50 306 560	50 313 560	50 314 560	50 315 560	50 316 560
80	80	750	50 303 561	50 304 561	50 305 561	50 306 561	50 313 561	50 314 561	50 315 561	50 316 561
80	70	1000	50 303 570	50 304 570	50 305 570	50 306 570	50 313 570	50 314 570	50 315 570	50 316 570
80	80	1000	50 303 571	50 304 571	50 305 571	50 306 571	50 313 571	50 314 571	50 315 571	50 316 571
80	70	1250	50 303 580	50 304 580	50 305 580	50 306 580	50 313 580	50 314 580	50 315 580	50 316 580
80	80	1250	50 303 581	50 304 581	50 305 581	50 306 581	50 313 581	50 314 581	50 315 581	50 316 581
80	70	1500	50 303 590	50 304 590	50 305 590	50 306 590	50 313 590	50 314 590	50 315 590	50 316 590
80	80	1500	50 303 591	50 304 591	50 305 591	50 306 591	50 313 591	50 314 591	50 315 591	50 316 591

Columns for packings and packing towers

Carrying baskets are available as auxiliaries

DN \varnothing	Working length in mm	Column	with inlet nozzle and measuring temperature nozzle below			with inlet nozzle and measuring temperature nozzle above		with vacuum jacket and inlet nozzle above		with vacuum jacket, inlet nozzle, and measuring temperature nozzle below		with vacuum jacket, inlet nozzle and measuring temperature nozzle above
			50 303	50 304	50 305	50 306	50 313	50 314	50 315	50 316		
100	80	300	50 303 620	50 304 620	50 305 620	50 306 620	50 313 620	50 314 620	50 315 620	50 316 620		
100	100	300	50 303 621	50 304 621	50 305 621	50 306 621	50 313 621	50 314 621	50 315 621	50 316 621		
100	80	500	50 303 640	50 304 640	50 305 640	50 306 640	50 313 640	50 314 640	50 315 640	50 316 640		
100	100	500	50 303 641	50 304 641	50 305 641	50 306 641	50 313 641	50 314 641	50 315 641	50 316 641		
100	80	750	50 303 660	50 304 660	50 305 660	50 306 660	50 313 660	50 314 660	50 315 660	50 316 660		
100	100	750	50 303 661	50 304 661	50 305 661	50 306 661	50 313 661	50 314 661	50 315 661	50 316 661		
100	80	1000	50 303 670	50 304 670	50 305 670	50 306 670	50 313 670	50 314 670	50 315 670	50 316 670		
100	100	1000	50 303 671	50 304 671	50 305 671	50 306 671	50 313 671	50 314 671	50 315 671	50 316 671		
100	80	1250	50 303 680	50 304 680	50 305 680	50 306 680	50 313 680	50 314 680	50 315 680	50 316 680		
100	100	1250	50 303 681	50 304 681	50 305 681	50 306 681	50 313 681	50 314 681	50 315 681	50 316 681		
100	80	1500	50 303 690	50 304 690	50 305 690	50 306 690	50 313 690	50 314 690	50 315 690	50 316 690		
100	100	1500	50 303 691	50 304 691	50 305 691	50 306 691	50 313 691	50 314 691	50 315 691	50 316 691		
150	125	300	50 303 720	50 304 720	50 305 720	50 306 720	50 313 720	50 314 720	50 315 720	50 316 720		
150	150	300	50 303 721	50 304 721	50 305 721	50 306 721	50 313 721	50 314 721	50 315 721	50 316 721		
150	125	500	50 303 740	50 304 740	50 305 740	50 306 740	50 313 740	50 314 740	50 315 740	50 316 740		
150	150	500	50 303 741	50 304 741	50 305 741	50 306 741	50 313 741	50 314 741	50 315 741	50 316 741		
150	125	750	50 303 760	50 304 760	50 305 760	50 306 760	50 313 760	50 314 760	50 315 760	50 316 760		
150	150	750	50 303 761	50 304 761	50 305 761	50 306 761	50 313 761	50 314 761	50 315 761	50 316 761		
150	125	1000	50 303 770	50 304 770	50 305 770	50 306 770	50 313 770	50 314 770	50 315 770	50 316 770		
150	150	1000	50 303 771	50 304 771	50 305 771	50 306 771	50 313 771	50 314 771	50 315 771	50 316 771		
150	125	1250	50 303 780	50 304 780	50 305 780	50 306 780	50 313 780	50 314 780	50 315 780	50 316 780		
150	150	1250	50 303 781	50 304 781	50 305 781	50 306 781	50 313 781	50 314 781	50 315 781	50 316 781		
150	125	1500	50 303 790	50 304 790	50 305 790	50 306 790	50 313 790	50 314 790	50 315 790	50 316 790		
150	150	1500	50 303 791	50 304 791	50 305 791	50 306 791	50 313 791	50 314 791	50 315 791	50 316 791		
200	200	300	50 303 820	50 304 820	50 305 820	50 306 820	50 313 820	50 314 820	50 315 820	50 316 820		
200	200	500	50 303 840	50 304 840	50 305 840	50 306 840	50 313 840	50 314 840	50 315 840	50 316 840		
200	200	750	50 303 860	50 304 860	50 305 860	50 306 860	50 313 860	50 314 860	50 315 860	50 316 860		
200	200	1000	50 303 870	50 304 870	50 305 870	50 306 870	50 313 870	50 314 870	50 315 870	50 316 870		
200	200	1250	50 303 880	50 304 880	50 305 880	50 306 880	50 313 880	50 314 880	50 315 880	50 316 880		
200	200	1500	50 303 890	50 304 890	50 305 890	50 306 890	50 313 890	50 314 890	50 315 890	50 316 890		
300	300	300	50 303 920	50 304 920	50 305 920	50 306 920	50 313 920	50 314 920	50 315 920	50 316 920		
300	300	500	50 303 940	50 304 940	50 305 940	50 306 940	50 313 940	50 314 940	50 315 940	50 316 940		
300	300	750	50 303 960	50 304 960	50 305 960	50 306 960	50 313 960	50 314 960	50 315 960	50 316 960		
300	300	1000	50 303 970	50 304 970	50 305 970	50 306 970	50 313 970	50 314 970	50 315 970	50 316 970		
300	300	1250	50 303 980	50 304 980	50 305 980	50 306 980	50 313 980	50 314 980	50 315 980	50 316 980		
300	300	1500	50 303 990	50 304 990	50 305 990	50 306 990	50 313 990	50 314 990	50 315 990	50 316 990		

Silvered columns with massive and hollow flanges



Columns for packings and packing towers, silvered with vac.jacket with massive flanges with hollow flanges

Carrying baskets are available as auxiliaries

DN	ø	working length in mm	column with vacuum jacket	with vacuum jacket and inlet nozzle above	with vacuum jacket, inlet nozzle and temperature measuring nozzle below	with vacuum jacket, inlet nozzle and temperature measuring nozzle below, and inlet nozzle above	column with vacuum jacket	with vacuum jacket and inlet nozzle above	with vacuum jacket, inlet nozzle and temperature measuring nozzle below	with vacuum jacket, inlet nozzle and temperature measuring nozzle below, and inlet nozzle above
50	43	300	50 323 420	50 324 420	50 325 420	50 326 420	50 333 420	50 334 420	50 335 420	50 336 420
50	50	300	50 323 421	50 324 421	50 325 421	50 326 421	50 333 421	50 334 421	50 335 421	50 336 421
50	43	500	50 323 440	50 324 440	50 325 440	50 326 440	50 333 440	50 334 440	50 335 440	50 336 440
50	50	500	50 323 441	50 324 441	50 325 441	50 326 441	50 333 441	50 334 441	50 335 441	50 336 441
50	43	750	50 323 460	50 324 460	50 325 460	50 326 460	50 333 460	50 334 460	50 335 460	50 336 460
50	50	750	50 323 461	50 324 461	50 325 461	50 326 461	50 333 461	50 334 461	50 335 461	50 336 461
50	43	1000	50 323 470	50 324 470	50 325 470	50 326 470	50 333 470	50 334 470	50 335 470	50 336 470
50	50	1000	50 323 471	50 324 471	50 325 471	50 326 471	50 333 471	50 334 471	50 335 471	50 336 471
50	43	1250	50 323 480	50 324 480	50 325 480	50 326 480	50 333 480	50 334 480	50 335 480	50 336 480
50	50	1250	50 323 481	50 324 481	50 325 481	50 326 481	50 333 481	50 334 481	50 335 481	50 336 481
50	43	1500	50 323 490	50 324 490	50 325 490	50 326 490	50 333 490	50 334 490	50 335 490	50 336 490
50	50	1500	50 323 491	50 324 491	50 325 491	50 326 491	50 333 491	50 334 491	50 335 491	50 336 491
80	70	300	50 323 520	50 324 520	50 325 520	50 326 520	50 333 520	50 334 520	50 335 520	50 336 520
80	80	300	50 323 521	50 324 521	50 325 521	50 326 521	50 333 521	50 334 521	50 335 521	50 336 521
80	70	500	50 323 540	50 324 540	50 325 540	50 326 540	50 333 540	50 334 540	50 335 540	50 336 540
80	80	500	50 323 541	50 324 541	50 325 541	50 326 541	50 333 541	50 334 541	50 335 541	50 336 541
80	70	750	50 323 560	50 324 560	50 325 560	50 326 560	50 333 560	50 334 560	50 335 560	50 336 560
80	80	750	50 323 561	50 324 561	50 325 561	50 326 561	50 333 561	50 334 561	50 335 561	50 336 561
80	70	1000	50 323 570	50 324 570	50 325 570	50 326 570	50 333 570	50 334 570	50 335 570	50 336 570
80	80	1000	50 323 571	50 324 571	50 325 571	50 326 571	50 333 571	50 334 571	50 335 571	50 336 571
80	70	1250	50 323 580	50 324 580	50 325 580	50 326 580	50 333 580	50 334 580	50 335 580	50 336 580
80	80	1250	50 323 581	50 324 581	50 325 581	50 326 581	50 333 581	50 334 581	50 335 581	50 336 581
80	70	1500	50 323 590	50 324 590	50 325 590	50 326 590	50 333 590	50 334 590	50 335 590	50 336 590
80	80	1500	50 323 591	50 324 591	50 325 591	50 326 591	50 333 591	50 334 591	50 335 591	50 336 591

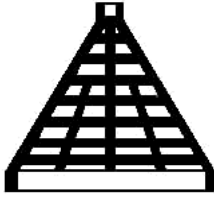
with massive flanges

with hollow flanges

DN	iø	working length in mm	column with vacuum jacket	with vacuum jacket and inlet nozzle above	with vacuum jacket, inlet nozzle and temperature measuring nozzle below	with vacuum jacket, inlet nozzle and temperature measuring nozzle above	column with vacuum jacket	with vacuum jacket and inlet nozzle above	with vacuum jacket, inlet nozzle, and temperature measuring nozzle below	with vacuum jacket, inlet nozzle and temperature measuring nozzle above
					temperature measuring nozzle below	temperature measuring nozzle above			temperature measuring nozzle below	temperature measuring nozzle above
100	80	300	50 323 620	50 324 620	50 325 620	50 326 620	50 333 620	50 334 620	50 335 620	50 336 620
100	100	300	50 323 621	50 324 621	50 325 621	50 326 621	50 333 621	50 334 621	50 335 621	50 336 621
100	80	500	50 323 640	50 324 640	50 325 640	50 326 640	50 333 640	50 334 640	50 335 640	50 336 640
100	100	500	50 323 641	50 324 641	50 325 641	50 326 641	50 333 641	50 334 641	50 335 641	50 336 641
100	80	750	50 323 660	50 324 660	50 325 660	50 326 660	50 333 660	50 334 660	50 335 660	50 336 660
100	100	750	50 323 661	50 324 661	50 325 661	50 326 661	50 333 661	50 334 661	50 335 661	50 336 661
100	80	1000	50 323 670	50 324 670	50 325 670	50 326 670	50 333 670	50 334 670	50 335 670	50 336 670
100	100	1000	50 323 671	50 324 671	50 325 671	50 326 671	50 333 671	50 334 671	50 335 671	50 336 671
100	80	1250	50 323 680	50 324 680	50 325 680	50 326 680	50 333 680	50 334 680	50 335 680	50 336 680
100	100	1250	50 323 681	50 324 681	50 325 681	50 326 681	50 333 681	50 334 681	50 335 681	50 336 681
100	80	1500	50 323 690	50 324 690	50 325 690	50 326 690	50 333 690	50 334 690	50 335 690	50 336 690
100	100	1500	50 323 691	50 324 691	50 325 691	50 326 691	50 333 691	50 334 691	50 335 691	50 336 691
150	125	300	50 323 720	50 324 720	50 325 720	50 326 720	50 333 720	50 334 720	50 335 720	50 336 720
150	150	300	50 323 721	50 324 721	50 325 721	50 326 721				
150	125	500	50 323 740	50 324 740	50 325 740	50 326 740	50 333 740	50 334 740	50 335 740	50 336 740
150	150	500	50 323 741	50 324 741	50 325 741	50 326 741				
150	125	750	50 323 760	50 324 760	50 325 760	50 326 760	50 333 760	50 334 760	50 335 760	50 336 760
150	150	750	50 323 761	50 324 761	50 325 761	50 326 761				
150	125	1000	50 323 770	50 324 770	50 325 770	50 326 770	50 333 770	50 334 770	50 335 770	50 336 770
150	150	1000	50 323 771	50 324 771	50 325 771	50 326 771				
150	125	1250	50 323 780	50 324 780	50 325 780	50 326 780	50 333 780	50 334 780	50 335 780	50 336 780
150	150	1250	50 323 781	50 324 781	50 325 781	50 326 781				
150	125	1500	50 323 790	50 324 790	50 325 790	50 326 790	50 333 790	50 334 790	50 335 790	50 336 790
150	150	1500	50 323 791	50 324 791	50 325 791	50 326 791				
200	150	300					50 333 820	50 334 820	50 335 820	50 336 820
200	200	300	50 323 820	50 324 820	50 325 820	50 326 820				
200	150	500					50 333 840	50 334 840	50 335 840	50 336 840
200	200	500	50 323 840	50 324 840	50 325 840	50 326 840				
200	150	750					50 333 860	50 334 860	50 335 860	50 336 860
200	200	750	50 323 860	50 324 860	50 325 860	50 326 860				
200	150	1000					50 333 870	50 334 870	50 335 870	50 336 870
200	200	1000	50 323 870	50 324 870	50 325 870	50 326 870				
200	150	1250					50 333 880	50 334 880	50 335 880	50 336 880
200	200	1250	50 323 880	50 324 880	50 325 880	50 326 880				
200	150	1500					50 333 890	50 334 890	50 335 890	50 336 890
200	200	1500	50 323 890	50 324 890	50 325 890	50 326 890				
300	250	300					50 333 920	50 334 920	50 335 920	50 336 920
300	300	300	50 323 920	50 324 920	50 325 920	50 326 920				
300	250	500					50 333 940	50 334 940	50 335 940	50 336 940
300	300	500	50 323 940	50 324 940	50 325 940	50 326 940				
300	250	750					50 333 960	50 334 960	50 335 960	50 336 960
300	300	750	50 323 960	50 324 960	50 325 960	50 326 960				
300	250	1000					50 333 970	50 334 970	50 335 970	50 336 970
300	300	1000	50 323 970	50 324 970	50 325 970	50 326 970				
300	250	1250					50 333 980	50 334 980	50 335 980	50 336 980
300	300	1250	50 323 980	50 324 980	50 325 980	50 326 980				
300	250	1500					50 333 990	50 334 990	50 335 990	50 336 990
300	300	1500	50 323 990	50 324 990	50 325 990	50 326 990				

Supporting rings for packing columns

Supporting rings funnel form, made of glass
for high transfer rates



Ø	porosity	Art.no.
24	3 x 3	50 911 130
28	3 x 3	50 911 131
34	3 x 3	50 911 132
38	3 x 3	50 911 133
48	3 x 3	50 911 134
48	4 x 4	50 911 144
78	3 x 3	50 911 135
78	4 x 4	50 911 145
98	3 x 3	50 911 136
98	4 x 4	50 911 146
145	4 x 4	50 911 147
145	5 x 5	50 911 157
200	4 x 4	50 911 148
200	5 x 5	50 911 158
200	6 x 6	50 911 168
300	6 x 6	50 911 169
300	8 x 8	50 911 189

Supporting rings funnel form, made of stainless steel wire netting



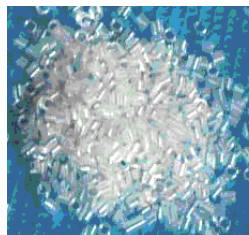
Ø	porosity	Art.no.
14	1 x 1	50 912 110
24	2 x 2	50 912 120
28	2 x 2	50 912 121
34	2 x 2	50 912 122
38	2 x 2	50 912 123
48	2 x 2	50 912 124
78	2 x 2	50 912 125
98	2 x 2	50 912 126
145	3 x 3	50 912 137
200	3 x 3	50 912 138
300	3 x 3	50 912 139

Packing material



Raschig rings
made of glass
packing quantity 2 Lit.

Ø x height	Art.no.
4 x 4	50 921 101
5 x 5	50 921 102
6 x 6	50 921 103
8 x 8	50 921 104
10 x 10	50 921 105

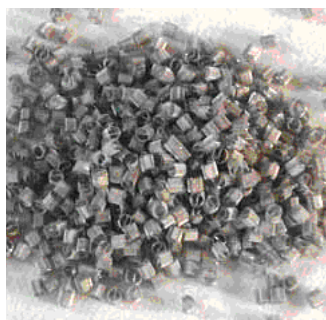


Wilson spirals
made of borosilicate glass
packing quantity 2 Lit.

Ø x height	Art.no.
3 x 3	50 922 100
4 x 4	50 922 101
7 x 7	50 922 102
12 x 12	50 922 103

wire-mesh rings with barrier
made of stainless steel 1.4404
packing quantity 2 Lit.

Ø x height	Art.no.
3 x 3	50 924 100
4 x 4	50 924 101
6 x 6	50 924 102



wire-mesh rings double wound
made of stainless steel 1.4404
packing quantity 2 Lit.

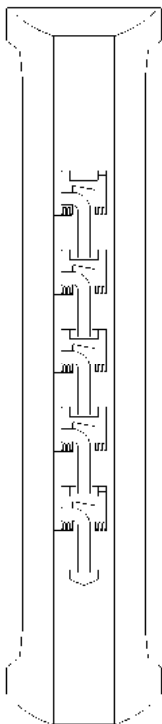
Ø x height	Art.no.
3 x 3	50 925 100
4 x 4	50 925 101

Sulzer packings

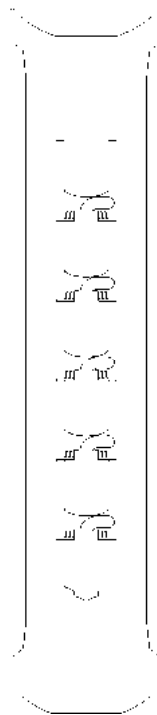


Typ	Ø 43 mm	Ø 70 mm	Ø 125 mm
CY	50 928 05	50 928 08	50 928 15
Kerapak	50 929 05	50 929 08	50 929 15
DX	50 930 05	50 930 08	50 930 15
EX	50 931 05	50 931 08	50 931 15

Bubble cap tray columns



Standard slit sieve bubble cap tray column with excellent separation capability

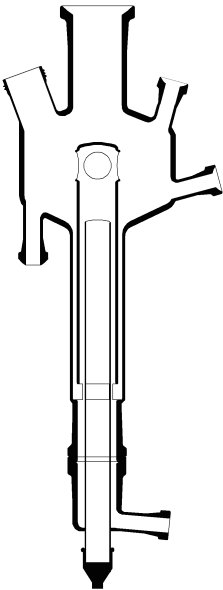
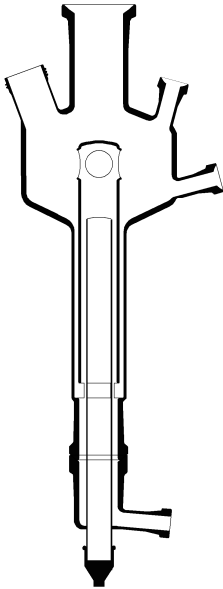


Slit sieve bubble cap tray column according to Diehm with high flow rate and high separation capability at small working volume

NS/DN	Shelves	∅	Art.no.	Art.no.	Art.no.	Art.no.
			Standard version without vacuum jacket	Standard version with vacuum jacket	Column acc. to Diehm without vacuum jacket	Column acc. to Diehm with vacuum jacket
NS 29	5	30	50 601 22	50 611 22	50 701 22	50 711 22
NS 29	10	30	50 601 24	50 611 24	50 701 24	50 711 24
50	5	50	50 601 42	50 611 42	50 701 42	50 711 42
50	10	50	50 601 44	50 611 44	50 701 44	50 711 44
50	15	50	50 601 46	50 611 46	50 701 46	50 711 46
50	20	50	50 601 48	50 611 48	50 701 48	50 711 48
80	5	80	50 601 52	50 611 52	50 701 52	50 711 52
80	10	80	50 601 54	50 611 54	50 701 54	50 711 54
80	15	80	50 601 56	50 611 56	50 701 56	50 711 56
80	20	80	50 601 58	50 611 58	50 701 58	50 711 58
100	5	100	50 601 62	50 611 62	50 701 62	50 711 62
100	10	100	50 601 64	50 611 64	50 701 64	50 711 64
100	15	100	50 601 66	50 611 66	50 701 66	50 711 66
100	20	100	50 601 68	50 611 68	50 701 68	50 711 68

Circulation evaporators

for the batch modus, provided with following connections
 GL 45 for filling
 KF 15/2 for temperature measuring
 KF 15/2 for level measuring
 KF 15/3 for a bottom valve

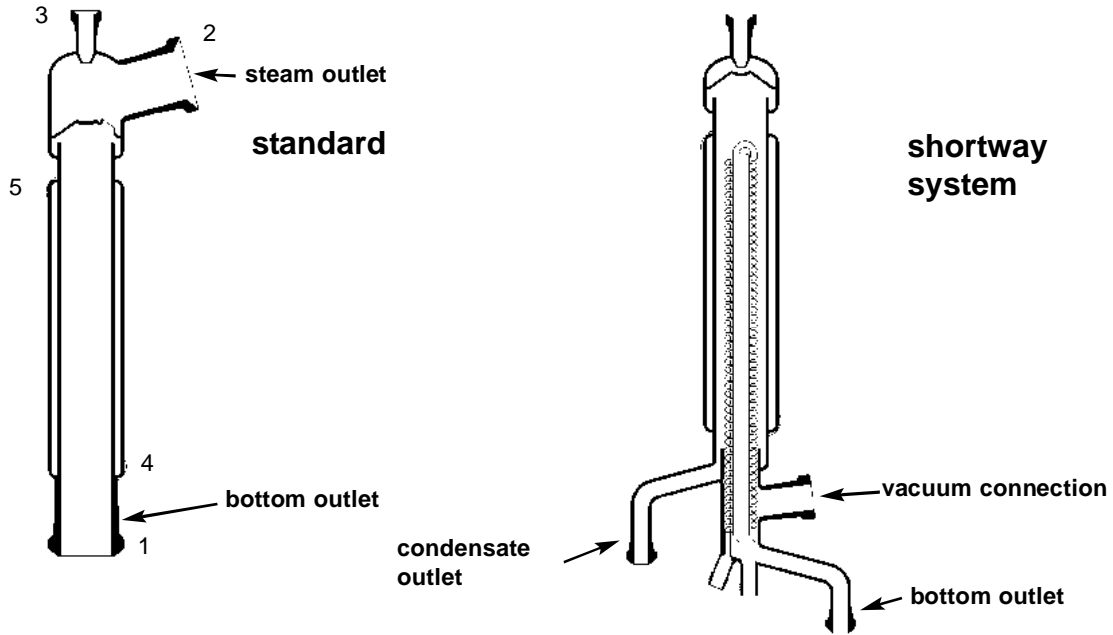


column connection	working level Lit.	heating power KW at 230V 50 Hz	Art.no.	Art.no. for the batch-modus
NS 29	0,25	0,5	52 025 291	52 025 292
NS 29	0,5	0,5	52 050 291	52 050 292
NS 45	0,5	0,5	52 050 451	52 050 452
NS 45	1,0	1,0	52 100 451	52 100 452
KF 25/2	0,25	0,5	52 025 251	52 025 252
KF 25/2	0,5	0,5	52 050 251	52 050 252
KF 40/2	1,0	1,0	52 100 401	52 100 402
KF 40/2	1,5	1,0	52 150 401	52 150 402
KF 40/2	2,5	1,5	52 250 401	52 250 402
KF 50/2	1,5	1,0	52 150 501	52 150 502
KF 50/2	2,5	1,5	52 250 501	52 250 502
KF 50/2	5	2,0	52 500 501	52 500 502
KF 50/2	10	3,0	52 901 501	52 901 502
KF 80/2	2,5	1,5	52 250 801	52 250 802
KF 80/2	5	2,0	52 500 801	52 500 802
KF 80/2	10	3,0	52 901 801	52 901 802
KF 80/2	20	5,0	52 903 801	52 903 802

Other powers and volts are possible.

for continuous operating, provided with following connections
 1 GL 45 for filling
 1 KF 15/2 for temperature measuring
 2 KF 15/2 for level controlling
 1 KF 15/3 for a bottom valve

Drop film evaporators



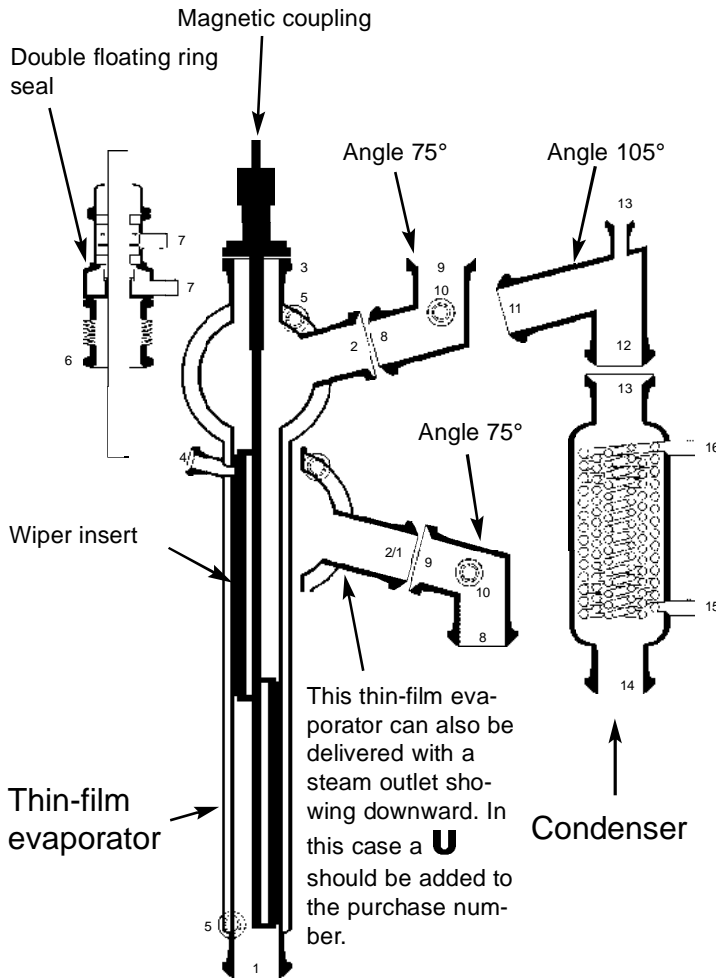
standard

heating area m ²	øi	flange length	1	2	3	4	5	Art.no.	with tempered steam outlet and bottom outlet	
									1	2
0,08	51	500	50/1	50/2	15/3	15/3	15/3	51 010 40	51 011 40	51 012 40
0,15	51	1000	50/1	50/2	15/3	15/3	15/3	51 010 43	51 011 43	51 012 43
0,23	51	1500	50/1	50/2	15/3	15/3	15/3	51 010 45	51 011 45	51 012 45
0,15	80	600	80/1	80/2	15/3	15/3	15/3	51 010 50	51 011 50	51 012 50
0,25	80	1000	80/1	80/2	15/3	15/3	15/3	51 010 53	51 011 53	51 012 53
0,38	80	1500	80/1	80/2	15/3	15/3	15/3	51 010 52	51 011 55	51 012 55
0,3	100	1000	100/1	100/2	15/3	15/3	15/3	51 010 63	51 011 63	51 012 63
0,45	100	1500	100/1	100/2	15/3	15/3	15/3	51 010 65	51 011 65	51 012 65
0,47	150	1000	150/1	150/2	15/3	15/3	15/3	51 010 73	51 011 73	51 012 73
0,7	150	1500	150/1	150/2	15/3	15/3	15/3	51 010 75	51 011 75	51 012 75
0,63	200	1000	200/1	150/2	25/3	25/3	25/3	51 010 83	51 011 83	51 012 83
0,95	200	1500	200/1	150/2	25/3	25/3	25/3	51 010 85	51 011 85	51 012 85
0,95	300	1000	300/1	150/2	25/3	25/3	25/3	51 010 93	51 011 93	51 012 93
1,4	300	1500	300/1	150/2	25/3	25/3	25/3	51 010 95	51 011 95	51 012 95

short way systems

heating area m ²	øi	flange length	1	2	3	4	5	Art.no.	with tempered bottom outlet and condensate outlet	
									1	2
0,08	51	500	15/1	15/2	15/3	15/3	15/3	51 110 40	51 111 40	51 112 40
0,15	51	1000	15/1	15/2	15/3	15/3	15/3	51 110 43	51 111 43	51 112 43
0,23	51	1500	15/1	15/2	15/3	15/3	15/3	51 110 45	51 111 45	51 112 45
0,15	80	600	25/1	25/2	15/3	15/3	15/3	51 110 50	51 111 50	51 112 50
0,25	80	1000	25/1	25/2	15/3	15/3	15/3	51 110 53	51 111 53	51 112 53
0,38	80	1500	25/1	25/2	15/3	15/3	15/3	51 110 52	51 111 55	51 112 55
0,3	100	1000	25/1	25/2	15/3	15/3	15/3	51 110 63	51 111 63	51 112 63
0,45	100	1500	25/1	25/2	15/3	15/3	15/3	51 110 65	51 111 65	51 112 65
0,47	150	1000	25/1	25/2	15/3	15/3	15/3	51 110 73	51 111 73	51 112 73
0,7	150	1500	25/1	25/2	15/3	15/3	15/3	51 110 75	51 111 75	51 112 75
0,63	200	1000	25/1	25/2	25/3	25/3	25/3	51 110 83	51 111 83	51 112 83
0,95	200	1500	25/1	25/2	25/3	25/3	25/3	51 110 85	51 111 85	51 112 85
0,95	300	1000	40/1	40/2	25/3	25/3	25/3	51 110 93	51 111 93	51 112 93
1,4	300	1500	40/1	40/2	25/3	25/3	25/3	51 110 95	51 111 95	51 112 95

Thin-film evaporators



Magnetic coupling

DN	Nm	Art.no.
50	5,0	30 870 50
80	5,0	30 870 80
100	5,0	30 871 00
150	5,0	30 871 50

Double floating ring seal

DN	Shaft ø	Art.no.
50	10	30 884 35
50	16	30 884 36

Reducer for floating ring seal

DN to DN	Art.no.
80 50	51 001 91
100 50	51 001 92
150 50	51 001 93
200 50	51 001 94
300 50	51 001 95

Glass components

Heating area m ²	flange ø	flange length	1	2	3	4	5	Art.no.	with tempered flanges	
									1	1+2
0,08	51	515	50/1	40/2	50/3	15/2	15/3	51 000 40	51 000 43	51 000 46
0,15	80	600	80/1	50/2	80/3	15/2	15/3	51 000 50	51 000 53	51 000 56
0,23	100	750	100/1	80/2	100/3	15/2	15/3	51 000 60	51 000 63	51 000 66
0,35	150	750	150/1	100/2	150/3	15/2	15/3	51 000 70	51 000 73	51 000 76
0,47	150	1000	150/1	100/2	150/3	15/2	15/3	51 000 71	51 000 74	51 000 77
0,63	200	1000	200/1	150/2	200/3	15/2	25/3	51 000 80	51 000 83	51 000 86

Evaporator casing made of enamelled steel

0,47	150	1000	150/3	100/2	150/3	15/3	25/3	51 000 72
0,63	200	1000	200/3	150/2	200/3	25/3	25/3	51 000 81
1,25	200	2000	200/3	150/2	200/3	25/3	25/3	51 000 82
1,88	300	2000	300/3	200/2	300/3	25/3	25/3	51 000 90

Rack made of 1.4571 (other materials and coatings upon request)

Heating area m ²	Wiper made of PTFE		Graphite		PTFE spares		Graphite spares	
	Rolls	Triang pcs	Rolls	Triang pcs	Rolls	Triang pcs	Rolls	Triang pcs
0,08	51 001 01	51 001 11	51 001 21	51 001 31	51 001 41	51 001 51	51 001 61	51 001 71
0,15	51 001 02	51 001 12	51 001 22	51 001 32	51 001 42	51 001 52	51 001 62	51 001 72
0,23	51 001 03	51 001 13	51 001 23	51 001 33	51 001 43	51 001 53	51 001 63	51 001 73
0,35	51 001 04	51 001 14	51 001 24	51 001 34	51 001 44	51 001 54	51 001 64	51 001 74
0,47	51 001 05	51 001 15	51 001 25	51 001 35	51 001 45	51 001 55	51 001 65	51 001 75
0,63	51 001 06	51 001 16	51 001 26	51 001 36	51 001 46	51 001 56	51 001 66	51 001 76
1,25	51 001 07	51 001 17	51 001 27	51 001 37	51 001 47	51 001 57	51 001 67	51 001 77
1,88	51 001 08	51 001 18	51 001 28	51 001 38	51 001 48	51 001 58	51 001 68	51 001 78

Corner pieces for thin-film evaporators

The connectors 10 + 13 are laid out as KF 15/2 and provided for temperature sensors

DN	vacuum jacketed				tempered	
	75°	105°	75°	105°	75°	105°
50	51 002 04	51 002 14	51 002 24	51 002 34	51 002 44	51 002 54
80	51 002 05	51 002 15	51 002 25	51 002 35	51 002 45	51 002 55
100	51 002 06	51 002 16	51 002 26	51 002 36	51 002 46	51 002 56
150	51 002 07	51 002 17	51 002 27	51 002 37	51 002 47	51 002 57
200	51 002 08	51 002 18	51 002 28	51 002 38	51 002 48	51 002 58
300	51 002 09	51 002 19	51 002 29	51 002 39	51 002 49	51 002 59

As of DN 150 the outlet 9 resp. 12 is a complete plane flange with a PTFE expansion bellows.

Condenser

DN	FI.13	FI.14	Connectors 15+16	m ²	Art.no.
50	50/2	50/1	GL 18	0,2	21 243 50
50	50/2	50/1	GL 18	0,3	21 245 50
80	80/2	80/1	GI 18	0,3	21 245 80
80	80/2	80/1	GL 18	0,6	21 250 80
100	100/2	100/1	GL 18	0,6	21 250 100
100	100/2	100/1	KF 15/3	1,0	21 261 100
150	150/3	150/3	KF 15/3	0,6	21 250 150
150	150/3	150/3	KF 15/3	1,0	21 261 150
150	150/3	150/3	KF 15/3	1,5	21 262 150
200	200/3	200/3	KF 15/3	1,0	21 261 200
200	200/3	200/3	KF 15/3	1,5	21 262 200
200	200/3	200/3	KF 25/3	2,5	21 263 200
300	300/3	300/3	KF 25/3	2,5	21 263 300

Stainless steel made

200	200/3	200/3	KF 25/3	2,5	21 260 25
300	300/3	300/3	KF 25/3	2,5	21 260 35
300	300/3	300/3	KF 25/3	5,0	21 260 36

Magnetic coupling

DN	Nm	Art.no.
80	1,3	30 850 80
80	5,6	30 870 80
100	1,3	30 851 00
100	5,6	30 871 00
150	5,6	30 871 50
200	11,2	30 882 00
300	22,4	30 883 00

Double floating ring seal

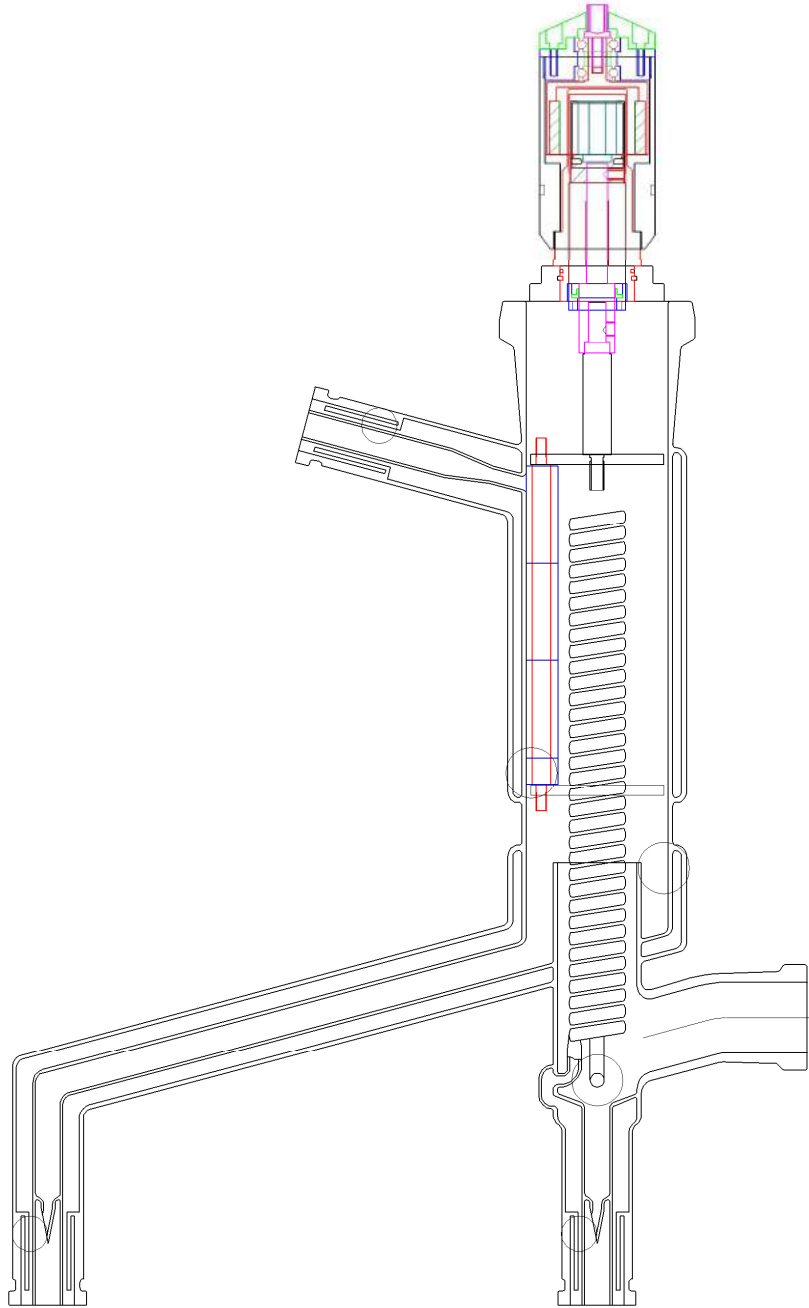
DN	for DN	Shaftø	Art.no.
50	50-200	21,5	30 884 22
50	300	45,0	30 884 51

Reducer for floating ring seal

DN	Shaft ø	Art.no.
80	21,5	51 001 91
100	21,5	51 001 92
150	21,5	51 001 93
200	21,5	51 001 94
300	45,0	51 001 95

Short way thin-film evaporators

In order to attain a high vacuum closeness all flange connections are, as a standard, ground finely. Optionally the polishing of the flanges is as possible as the provision of a groove to be used for an O-ring seal.



Rated width DN	Heating zone		Cooling area		Vacuum flange DN	Inlet DN	Residues and condensate outlet	Distance between residues and distillate outlet	Art.no.
	length	ø	m ²	m ²					
80	180	80	0,045	0,06	25	15	15	250	51 10 070
80	360	80	0,090	0,12	25	15	15	250	51 10 080
100	200	100	0,063	0,07	25	15	15	300	51 10 090
100	400	100	0,125	0,13	25	15	15	300	51 10 100
150	400	150	0,188	0,27	40	15	15	400	51 10 150
200	500	190	0,298	0,62	40	15	15	400	51 10 200
300	500	260	0,408	1,03	50	15	15	400	51 10 300

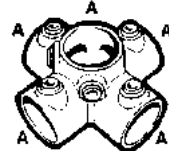
Universal KeeClamp frame connection parts for pipes 3/4" up to 1 1/4"

These parts are made of zinc cast. However, optionally they can also be delivered with plastic coatings. Besides, all 1" parts are also compatible with the rack components of the Diehm-system.

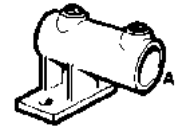
- 3/4" 9020010-5
- 1" 9020010-6
- 1 1/4" 9020010-7
- A 1" -
- B 3/4" 9020010-65
- A 1 1/4"-
- B 1" 9020010-76



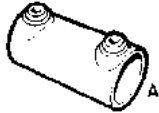
- 3/4" 9020040-5
- 1" 9020040-6
- 1 1/4" 9020040-7



- 3/4" 9020065-5



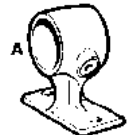
- 3/4" 9020014-5
- 1" 9020014-6
- 1 1/4" 9020014-7



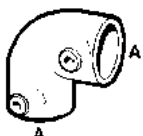
- 3/4" 9020045-5
- 1" 9020045-6
- 1 1/4" 9020045-7
- A 1"-



- 3/4" 9020070-5
- 1" 9020070-6
- 1 1/4" 9020070-7



- 3/4" 9020015-5
- 1" 9020015-6
- 1 1/4" 9020015-7

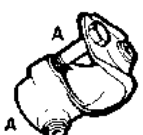


- B 3/4" 9020045-6
- A 1"-
- B 1 1/4" 9020045-7

- 3/4" 9020075-5
- 1" 9020075-6
- 1 1/4" 9020075-7



- 3/4" 9020016-5
- 1" 9020016-6
- 1 1/4" 9020016-7



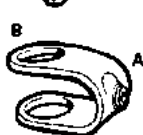
- 3/4" 90200F50-5
- 1" 90200F50-6
- 1 1/4" 90200F50-7



- 3/4" 9020077-5
- 1" 9020077-6
- 1 1/4" 9020077-7



- 3/4" 9020017-5
- 1" 9020017-6
- 1 1/4" 9020017-7



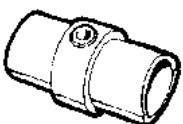
- 3/4" 90200M50-5
- 1" 90200M50-6
- 1 1/4" 90200M50-7



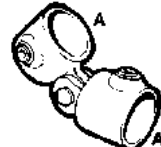
- 3/4" 9020078-5
- 1" 9020078-6
- 1 1/4" 9020078-7



- 3/4" 9020018-5
- 1" 9020018-6
- 1 1/4" 9020018-7



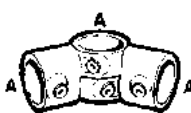
- 3/4" 90200C50-5
- 1" 90200C50-6
- 1 1/4" 90200C50-7



- 3/4" 9020097-5
- 1" 9020097-6
- 1 1/4" 9020097-7



- 3/4" 9020019-5
- 1" 9020019-6
- 1 1/4" 9020019-7



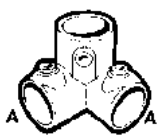
- 3/4" 90200M51-5
- 1" 90200M51-6
- 1 1/4" 90200M51-7



- 3/4" 9020098-5
- 1" 9020098-6
- 1 1/4" 9020098-7



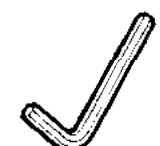
- 3/4" 9020020-5
- 1" 9020020-6
- 1 1/4" 9020020-7



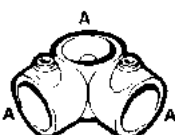
- 3/4" 90200M52-5
- 1" 90200M52-6
- 1 1/4" 90200M52-7



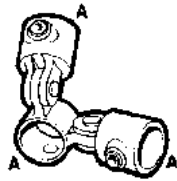
- 3/4" 9020099-5
- 1" 9020099-6
- 1 1/4" 9020099-7



- 3/4" 9020021-5
- 1" 9020021-6
- 1 1/4" 9020021-7



- 3/4" 90200C52-5
- 1" 90200C52-6
- 1 1/4" 90200C52-7



- 1" 90200105-6
- 1 1/4" 90200105-7



- 3/4" 9020025-5
- 1" 9020025-6
- 1 1/4" 9020025-7



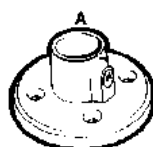
- 3/4" 90200C58-5
- 1" 90200C58-6
- 1 1/4" 90200C58-7



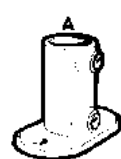
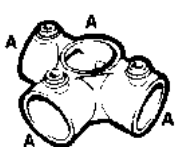
- 3/4" 9020026-5
- 1" 9020026-6
- 1 1/4" 9020026-7



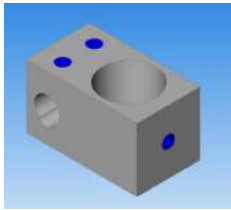
- 3/4" 9020060-5
- 1" 9020060-6
- 1 1/4" 9020060-7



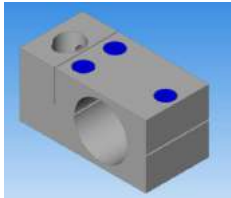
- 3/4" 9020035-5
- 1" 9020035-6
- 1 1/4" 9020035-7



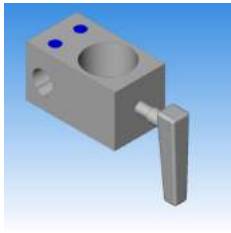
Rack parts made of anodized aluminium



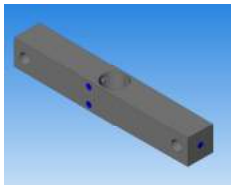
Cross connector		
Ø1	Ø2	purchase no.
1" / 34 mm	10 - 16 mm	901 4534 161
1 1/4" / 42 mm	10 - 16 mm	901 4543 161



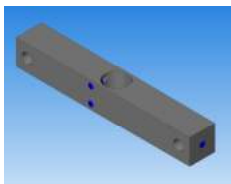
Cross connector (separable, for afterwards installation)		
Ø1	Ø2	purchase no.
1" / 34 mm	10 - 16 mm	901 4534 162
1 1/4" / 42 mm	10 - 16 mm	901 4543 162



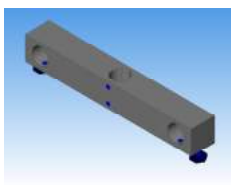
Cross connector with clamping bracket		
Ø1	Ø2	purchase no.
1" / 34 mm	10 - 16 mm	901 4534 163
1 1/4" / 42 mm	10 - 16 mm	901 4543 163



Flange support bar (for flange holder DN 120 / DN 150)			
Ø1	Ø2	holder	purchase no.
1" / 34 mm	13 mm	fiberglass	901 0134 134
1" / 34 mm	16 mm	stainless steel	901 0134 164



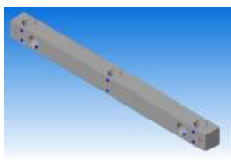
Flange support bar (for flange holder DN 200)			
Ø1	Ø2	holder	purchase no.
1" / 34 mm	16 mm	stainless steel	901 0134 165



Foot for small 1" racks		purchase no.
350 x 50 x 50 mm		901 0134 340
3 x 1" / 34 mm		



Flange support bar (for stainless steel holder DN 120 - DN 200)		
690 x 50 x 50 mm		purchase no.
1" / 34 mm	DN 150 fiberglass	901 0334 134
1" / 34 mm	DN 120 / DN 150	901 0334 164
1" / 34 mm	DN 200	901 0334 165



Foot for standard 1" racks		purchase no.
690 x 50 x 50 mm		901 0334 340
5 x 1" / 34 mm		



Table rack for small reaction systems up to 5 litre / DN 60 up to DN 120 prepared for flange holder DN 60 - DN 120 made of fiberglass.

length x wide x height
350 x 500 x 1300 mm

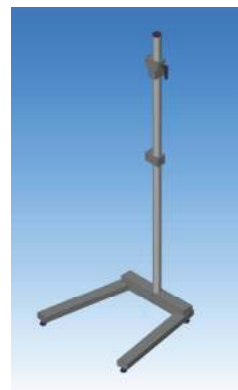
purchase no.
91 415 11 1A6

prepared for flange holder DN 150 made of fiberglass or flange holder DN 120 - DN 200 made of stainless steel.

length x wide x height
350 x 500 x 1300 mm

DN	purchase no.
150	91 415 14 1A3

120-	
150	91 415 14 1A6
200	91 415 15 1A6



With centering block for the stirrer motor

length x wide x height
460 x 505 x 1300 mm

DN	purchase no.
150	91 416 14 1A3

120-	
150	91 416 14 1A6
200	91 416 15 1A6

Bottom rack for reaction systems up to 20 litre / DN 60 up to DN 150

prepared for flange holder DN 150 made of fiberglass or flange holder DN 60 - DN 150 made of stainless steel. length x wide x height

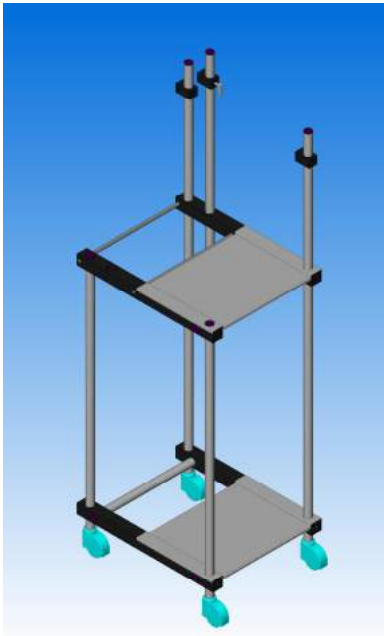
450 x 500 x 1500 mm

For flanges	
DN	purchase no.
60 -	
150	914204U2A6

450 x 500 x 1800 mm with wheels

DN	purchase no.
60-	
150	914204U4A6





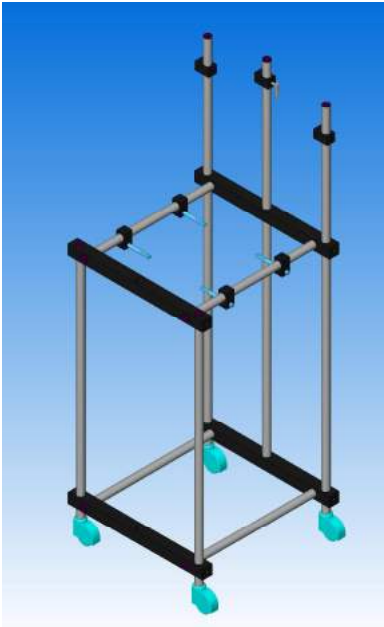
Laboratory rack for reactors DN 120 - DN 200 (vessels up to 20 litre)

measurements: length x wide x height: 550 x 690 x 1800 mm
material: connection parts made of anodized aluminium tubes and staffs made of stainless steel AISI 304
 table made of stainless steel AISI 304
 4 wheels made of tough plastic

	purchase no.	
	with wheels	and without wheels
for holders made of fiberglass		
DN 60 - 120	91 450 12 6A2	91 450 11 6A2
DN 150	91 450 15 3A2	91 450 14 3A2
for holders made of stainless steel		
DN 120 - 150	91 450 18 6A2	91 450 17 6A2
DN 200	91 450 21 6A2	91 450 20 6A2

additional parts:
 vessel bearing ring 16 mm with cross clamp 91 450 34AT6
 lift system with counter weight for stainless steel holder 91 450 34L01

lift system with counter weight for vessels with holder made of fiberglass
 DN 120 91 450 L120
 DN 150 91 450 L150

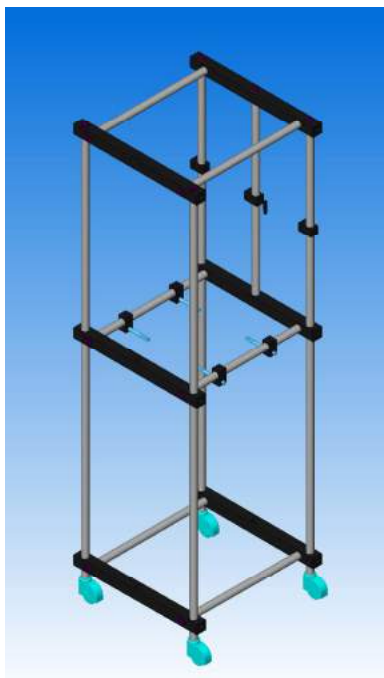


Laboratory rack for reactors DN 300, up to 20 litre with technical flanges

measurements: length x wide x height: 700 x 690 x 1800 mm
material: connection parts made of anodized aluminium tubes and staffs made of stainless steel AISI 304
 4 wheels made of tough plastic

DN	purchase no.	
	with wheels	and without wheels
200	91 450 24 6A2	91 450 23 6A2
300	91 450 26 6A2	91 450 25 6A2

additional parts:
 vessel bearing ring 16 mm with cross clamp 91 450 34AT6
 lift system with counter weight for stainless steel holder 91 450 34L01

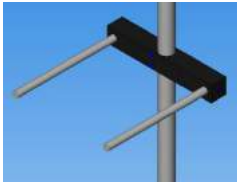


Laboratory rack for reactors DN 300, up to 50 litre with technical flanges

measurements: length x wide x height: 700 x 690 x 2300 mm
material: connection parts made of anodized aluminium tubes and staffs made of stainless steel AISI 304
 4 wheels made of tough plastic

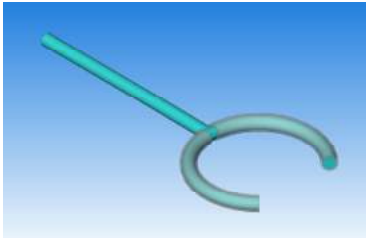
DN	purchase no.	
	with wheels	and without wheels
300	91 450 35 6A3	91 450 30 6A3

additional parts:
 vessel bearing ring 16 mm with cross clamp 91 450 34AT6
 lift system with counter weight for stainless steel holder 91 450 34L01
 additional counter weight 5 kg 91 450 34L02



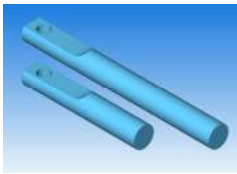
**Grounded staffs
for holding of reaction vessels. Staffs
made of stainless steel AISI 304**

Ø mm	length mm	purchase no.
13	300	91 410 13030
13	490	91 410 13049
16	300	91 410 16030
16	490	91 410 16049
16	500	91 410 16050
16	550	91 410 16055



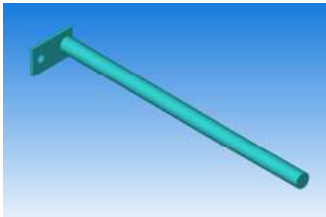
**Bearing ring simple construction
with silicone jacket**

Ø mm	purchase no.
13	91 407 13300
16	91 407 16300



**Bearing staff
for fixing of flange holders**

Ø mm	length mm	purchase no.
16	90	91 408 16090
16	110	91 408 16110
16	130	91 408 16130
16	150	91 408 16150
16	170	91 408 16170



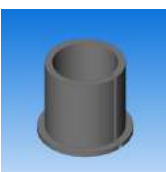
**Fixation staff
for stabilise a rack at the wall**

Ø mm	purchase no.
13 x 250	91 409 13250



**Tension holder for supporting
tubes, reactors and so on.
rod**

Ø mm	length	purchase no.
70	300	91 411 07000
90	300	91 411 09000
100	300	91 411 10000
105	300	91 411 10500
110	300	91 411 11000
120	300	91 411 12000
130	300	91 411 13000
150	300	91 411 15000
160	300	91 411 16000
180	300	91 411 18000
190	300	91 411 19000
200	300	91 411 20000
210	300	91 411 21000
215	300	91 411 21500
250	300	91 411 25000
270	300	91 411 27000
300	300	91 411 30000
310	300	91 411 31000
315	300	91 411 31500
350	300	91 411 35000
365	300	91 411 36500
415	300	91 411 41500



distance bush Ø 13 / 16 mm

Ø1	Ø2	Purchase no.
13	16	90 103 01613



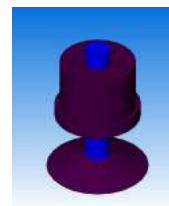
**Wheels with break for
frames with vertical SS pipes**

	Purchase no.
1"	9016334075
1" electrical conductivity	9016334075E
1 1/4"	9016343075
1 1/4" electrical conductivity	9016343075E

Grounded tubes made of stainless steel AISI 304

Ø mm	length mm	purchase no.
33,7	450	91 410 34045
33,7	500	91 410 34050
33,7	550	91 410 34055
33,7	590	91 410 34059
33,7	600	91 410 34060
33,7	700	91 410 34070
33,7	900	91 410 34090
33,7	950	91 410 34095
33,7	1000	91 410 34100
33,7	1100	91 410 34110
33,7	1380	91 410 34138
33,7	1680	91 410 34168
33,7	1700	91 410 34170
33,7	1750	91 410 34175
33,7	1980	91 410 34198
33,7	2100	91 410 34210
33,7	2180	91 410 34212
33,7	2200	91 410 34280
33,7	2300	91 410 34230
33,7	2500	91 410 34250
33,7	2700	91 410 34270
33,7	2950	91 410 34295

42,4	500	91 410 43050
42,4	550	91 410 43055
42,4	600	91 410 43060
42,4	700	91 410 43070
42,4	900	91 410 43090
42,4	950	91 410 43095
42,4	1000	91 410 43100
42,4	1100	91 410 43110
42,4	1680	91 410 43168
42,4	1700	91 410 43170
42,4	1800	91 410 43180
42,4	2180	91 410 43218
42,4	2200	91 410 43220
42,4	2300	91 410 43230
42,4	2500	91 410 43250
42,4	2700	91 410 43270
42,4	3000	91 410 43300



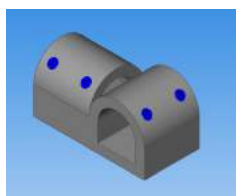
Base for SS tubes

Tube	length	Purchase no.
M8	30	90 162 08040
1"	50	90 162 34050
x2	80	90 162 34080
1 1/4"	50	90 162 43050
x2,5	80	90 162 43080



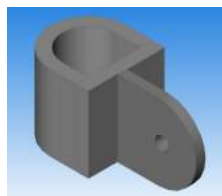
**Fork holders for
Flanges**

DN	Length	Purchase no.
15	300	91 412 01500
25	300	91 412 02500
40	300	91 412 04000
50	300	91 412 05000
80	300	91 412 08000
100	300	91 412 10000
150	300	91 412 15000



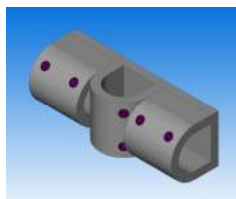
T - connector
made of stainless steel AISI 304

	purchase no.
1" x 1"	904 1034 340
1 1/4" x 1 1/4"	904 1043 430



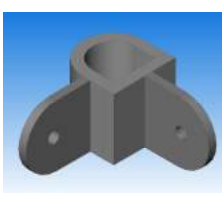
Diagonal connector
made of stainless steel AISI 304

	purchase no.
1" x 1"	904 M5034 08
1 1/4" x 1 1/4"	904 M5043 08



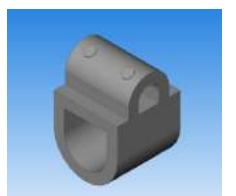
Double T - connector
made of stainless steel AISI 304

	purchase no.
1" x 1"	904 2634 340
1 1/4" x 1 1/4"	904 2643 430



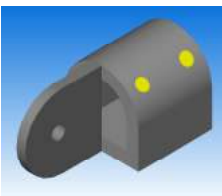
Double diagonal connector
made of stainless steel AISI 304

	purchase no.
1"	904 M5234 08
1 1/4"	904 M5243 08



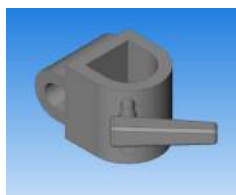
X - connector
made of stainless steel AISI 304

	purchase no.
1" x 10 - 16 mm	904 4534 161
1 1/4" x 10 - 16 mm	904 4543 161



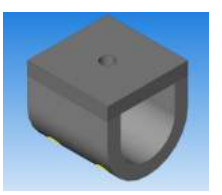
Tube adapter for diagonal connector
made of stainless steel AISI 304

	purchase no.
1"	904 F5034 08
1 1/4"	904 F5043 08



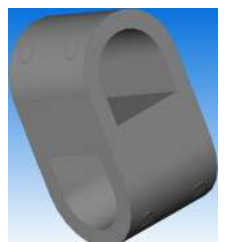
X - connector with quick regulation lever
made of stainless steel AISI 304

	purchase no.
1" x 10 - 16 mm	904 4534 163
1 1/4" x 10 - 16 mm	904 4543 163



Tube connector with thread M8
made of stainless steel AISI 304

	purchase no.
1"	904 0034 M08
1 1/4"	904 0043 M08



X - connector
made of stainless steel AISI 304

	purchase no.
1" x 1"	904 4534 340
1 1/4" x 1"	904 4543 340
1 1/4" x 1 1/4"	904 4543 430

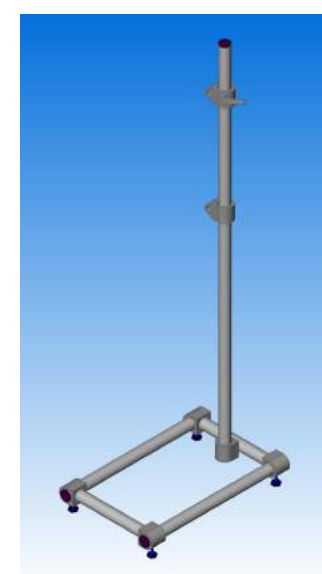
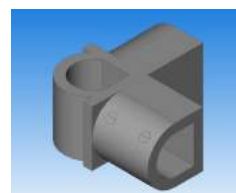


Table rack for small reaction systems up to 5 litre / DN 60 up to DN 120 complete made of stainless steel
prepared for flange holder DN 60 - DN 120 made of glass polyester.

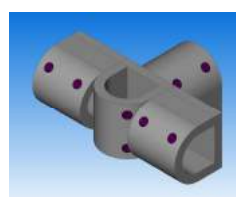
wide x length x height
350 x 500 x 1300 mm

purchase no.
91 415 11 1S6



Corner connector
made of stainless steel AISI 304

	purchase no.
1" x 1"	904 2134 34
1 1/4" x 1 1/4"	904 2143 43



Double corner connector
made of stainless steel AISI 304

	purchase no.
1" x 1"	904 3534 34
1 1/4" x 1 1/4"	904 3543 43



Table rack for reaction systems up to 5 litre / DN 120 up to DN 200 complete made of stainless steel
prepared for flange holder DN 150 made of fiberglass or flange holder DN 120 - DN 200 made of stainless steel.

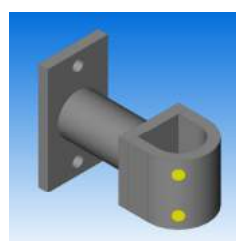
length x wide x height
350 x 500 x 1300 mm

for flange holder made of fiberglass

DN	purchase no.
150	91 415 14 1S3

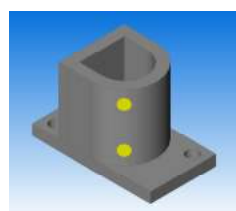
for flange holder made of stainless steel

DN	purchase no.
120-	
150	91 415 14 1S6
200	91 415 15 1S6



Wall support
made of stainless steel AISI 304

	purchase no.
1"	904 6434 34
1 1/4"	904 6443 43



Floor plate
made of stainless steel AISI 304

	purchase no.
1"	904 6234 34
1 1/4"	904 6243 43



Bottom rack for reaction systems up to 20 litre / DN 120 - DN 150 complete made of stainless steel AISI 304

prepared for flange holder DN 150 made of fiberglass or flange holder DN 120 - DN 200 made of stainless steel.

length x wide x height
350 x 500 x 1800 mm

for flange holder made of fiberglass

DN	purchase no.
150	91 415 14 2S3

for flange holder made of stainless steel

DN	purchase no.
120-	
150	91 415 14 2S6
200	91 415 15 2S6

Laboratory rack for reactors DN 120 - DN 200, up to 20 litre

material: complete rack made of stainless steel AISI 304
table made of stainless steel AISI 304
4 wheels made of tough plastic

measurements: length x wide x height: 550 x 690 x 1800 mm

DN	purchase no.	
	with wheels	and without wheels
for flange holder made of fiberglass		
DN 120	91 450 12 3S2	91 450 11 3S2
DN 150	91 450 15 3S2	91 450 14 3S2
for flange holder made of stainless steel		
DN 120 - 150	91 450 18 6S2	91 450 17 6S2
DN 200	91 450 21 6S2	91 450 20 6S2

measurements: length x wide x height: 550 x 690 x 2100 mm

DN	purchase no.	
	with wheels	and without wheels
for flange holder made of fiberglass		
DN 120	91 450 12 3S2	91 450 11 3S4
DN 150	91 450 15 3S2	91 450 14 3S4
for flange holder made of stainless steel		
DN 120 - 150	91 450 18 6S2	91 450 17 6S4
DN 200	91 450 21 6S2	91 450 20 6S4

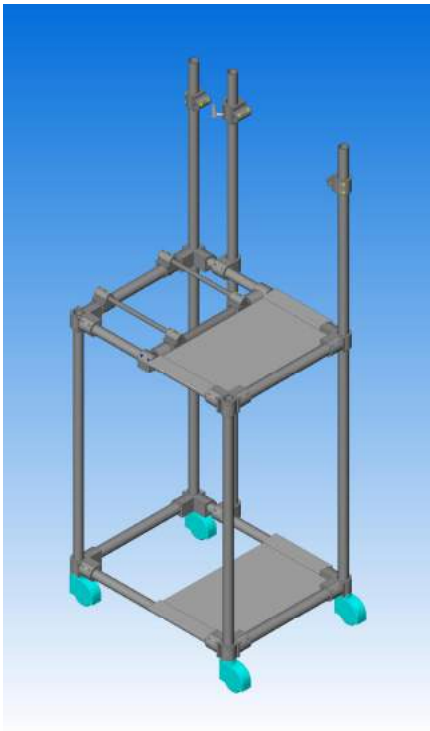
additional parts:

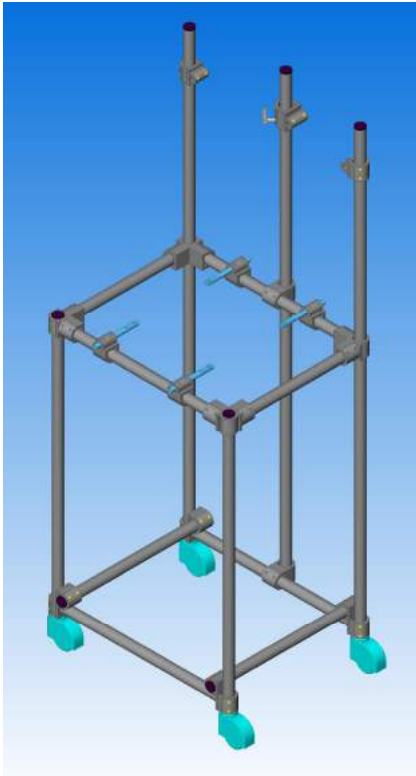
vessel bearing ring 16 mm with cross clamp	91 450 34 T01
lift system with counter weight for stainless steel holder	91 450 34 L01

lift system with counter weight for vessels with holder made of fiberglass

DN 120	91 450 L120
DN 150	91 450 L150

vessel bearing ring 16 mm with cross clamp	91 450 34ST6
ft system with counter weight for stainless steel holder	91 450 34L01





Laboratory rack for reactors DN 300, up to 20 litre mit Bundflanschsystem

material: complete rack made of stainless steel AISI 304
4 wheels made of tough plastic

measurements: length x wide x height: 700 x 690 x 1800 mm

DN	purchase no.	
	with wheels	and without wheels
200	91 450 24 6S2	91 450 23 6S2
300	91 450 26 6S2	91 450 25 6S2

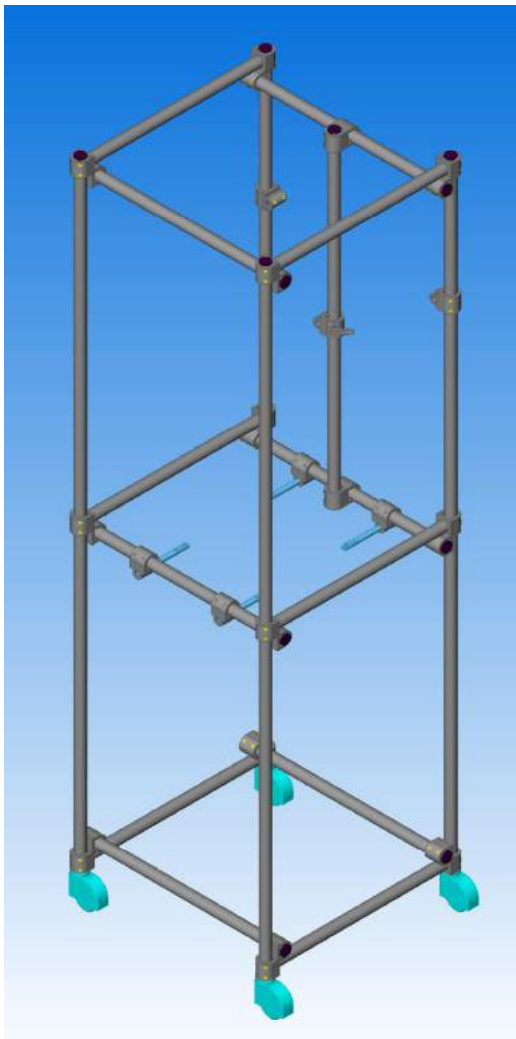
measurements: length x wide x height: 700 x 690 x 1800 mm

DN	purchase no.	
	with wheels	and without wheels
200	91 450 24 6S4	91 450 23 6S4
300	91 450 26 6S4	91 450 25 6S4

additional parts:

vessel bearing ring 16 mm cross clamp 91 450 T01
lift system with counter weight for stainless steel holder 91 450 L01

vessel bearing ring 16 mm cross clamp 91 450 34ST6
lift system with counter weight for stainless steel holder 91 450 34L01
additional counter weight 5 kg 91 450 34L02



Frames for reactors DN 300, up to 50 litre

material: complete rack made of stainless steel AISI 304
4 wheels made of tough plastic

measurements: length x wide x height: 690 x 700 x 2300 mm

DN	purchase no.	
	with wheels	and without wheels
200	91 450 34 6S3	91 450 29 6S3
300	91 450 35 6S3	91 450 30 6S3

measurements: length x wide x height: 800 x 800 x 3000 mm

DN	purchase no.	
	with wheels	and without wheels
400	91 450 65 6S3	91 450 60 6S3
450	91 450 75 6S3	91 450 70 6S3

additional parts:1"

vessel supporting ring 16 mm with cross clamp 91 450 34 T01
lift system with counter weight for stainless steel holder 91 450 34 L01
additional counter weight 5 kg 91 450 34 L02

vessel bearing ring 16 mm cross clamp 91 450 34ST6
lift system with counter weight for stainless steel holder 91 450 34L01
additional counter weight 5 kg 91 450 34L02

additional parts:1 1/4"

vessel supporting ring 16 mm with cross clamp 91 450 43 T01
lift system with counter weight for stainless steel holder 91 450 43 L01
additional counter weight 5 kg 91 450 43 L02

vessel bearing ring 16 mm cross clamp 91 450 43ST6
lift system with counter weight for stainless steel holder 91 450 43L01
additional counter weight 5 kg 91 450 34L02

Reaction apparatus with agitator and double wall vessel 0,1 - 5 litres

We deliver the systems **without motor**, but with manual and **CE** certificate.

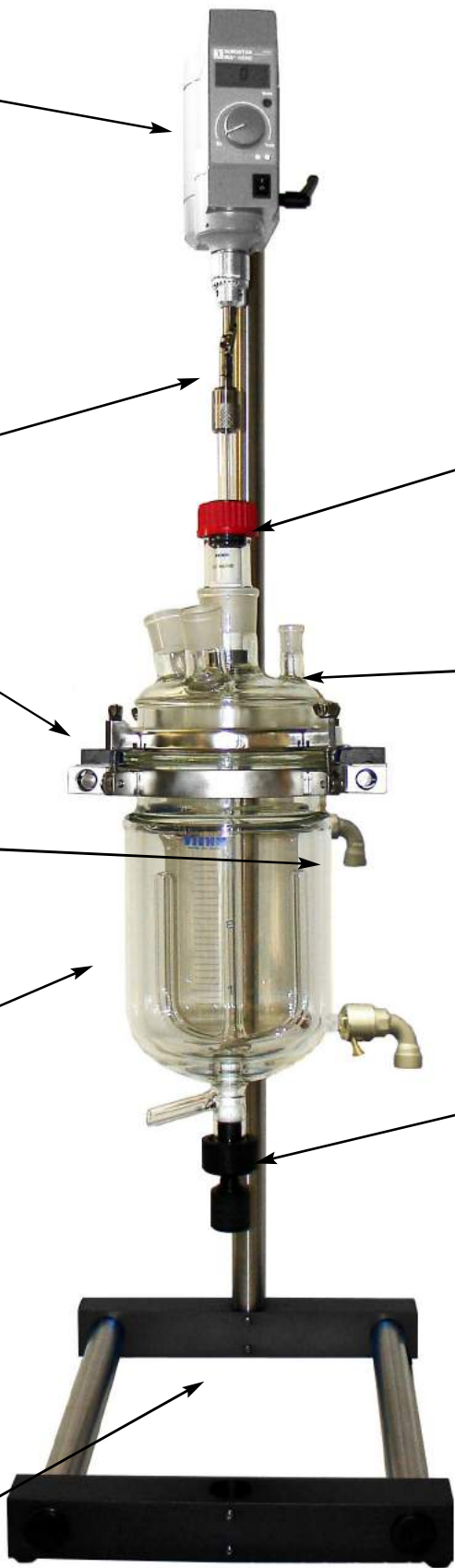
The double cardan coupling enables a tension-free drive of the agitator even in case of high speeds.

The FEP coated silicone O-ring can be used up to **230°C**. The SS flange holder can used up to 300°C.

The side arms are fitted with **SS hose connectors** for metallhoses. The sealings are resist **up to 230°C**

When manufactured in series, the **fully vacuum compatible** double wall vessel is approved for pressures of up to 0,5 bar, but it can be designed for **higher pressures** also. The apparatus can be equipped with a **turbo tempering unit** ensuring a more balanced and in the bottom area considerably improved energy transference.

The rigid stainless steel pipe frame can be easily expanded or converted by means of universal anodized aluminium connecting components.



All systems are provided with a low-maintenance mechanical seal with ball bearings for the stirrer.

Optinally the lid can be provided with other necks like flanges or threads according to the **customer requirements**.

The 10 to 25 mm bottom valve does not only close **deadvolume-free** it ensures a residue-free discharge out of the valve room itself. A **spring** absorbs the pressure caused by the heat extension of the valve spindle and readjusts the spindle automatically during cooling down.

For problematic cases the valve can optionally be tempered or fitted with a peek spindle.

Especially in case of emerging crystals it can be provided with Viton- or Kalrez O-ring.

measurements:
350 x 500 x 1300 mm

Reaction system 0,1 - 5 litres

The table rack based system is already fitted to cope with most of the problems occurring in laboratories. When manufactured in series it is already suited for pressures up to 0,5 bar and temperatures up to 200° C. Optionally it can be designed for temperatures of up to 300° C or pressures up to 2 bar. The expandable system enables almost all reaction system applications occurring within a laboratory.

A PFA coated anchor stirrer for high-viscous media as well as a reversal stirrer for low-viscous media are integrated in the system. For spare agitators or agitators made of stainless steel please see the list of spare parts or the catalogue.

Capacity over pressure		Lid adapter			Article numbers			
Litres	max. bar	Necks (NS)			DN 60	DN 100	DN 120	DN 150
		center	15° angled	vertical				
0,1	0,2	14	2 x 14 1 x 19	1 x 14	3500160100			
0,25	0,2	14	2 x 14 1 x 19	1 x 14	3500260100			
0,5	0,2	14	2 x 14 1 x 19	1 x 14	3500560100			
0,25	0,2	29	3 x 29	1 x 19		3500210100		
0,5	0,2	29	3 x 29	1 x 19		3500510100		
1,0	0,2	29	3 x 29	1 x 19		3501010100		
2,0	0,2	29	3 x 29	1 x 19		3502010100		
0,5	0,2	29	3 x 29	1 x 29			3500512100	
1,0	0,2	29	3 x 29	1 x 29			3501012100	3501015100
2,0	0,2	29	3 x 29	1 x 29			3502012100	3502015100
3,0	0,2	29	3 x 29	1 x 29			3503012100	3503015100
4,0	0,2	29	3 x 29	1 x 29			3504012100	3504015100
5,0	0,2	29	3 x 29	1 x 29			3505012100	3505015100

Standard Equipment

Glass reactor with death volume free, springloaded valve 10 mm, lid, O-ring made of seamless FEP coated silicone, ball beared mechanical seal, PFA coated SS anchor stirrer, PFA coated SS reversal stirrer, stirrer-motor coupling, stainless steel hose connectors to M16 x1, stainless steel frame with anodized aluminium connection parts including holder for the stirrer motor. Stainless steel holder for the reactors, manual, CE certificate.

Optical Accesories

Hose connectors:

Hose connectors for hoses 10 mm	188411510
Hose connectors for hoses 12 mm	188411512
Hose connectors for hoses M 24 x 1,5	188411524
Hose connectors for hoses M 30 x 1,5	188411530

Valves:

Larger valves: There are reactors with 16 mm, 20 mm and 25 mm valves available.

Valves for working with solid materials like cristals with O-ring made of viton or perfluorelastomere

10 mm tape with viton O-ring	1891004
10 mm tape with perfluorelastomere O-ring	1891003
16 mm tape with viton O-ring	1891604
16 mm tape with perfluorelastomere O-ring	1891603
20 mm tape with viton O-ring	1892004
20 mm tape with perfluorelastomere O-ring	1892003
20 mm tape with viton O-ring	1892504
20 mm tape with perfluorelastomere O-ring	1892503
10 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1891002-316°
16 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1891602-316°
20 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1892002-316°
25 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1892502-316°

Motors: electrical controled with digital display max. 500 rpm.

R50 D 50 W 220 V 0,3 Nm	4060216
R80 D 80 W 220 V 0,8 Nm	40603R8012
R80 D PC 80 W 220 V 0,8 Nm with RS 232 and PC program for remute controlling	40603R8013
SD 180 W 220 V 100 Ncm	4060217
R100 C 300 W 220 V 150 Ncm and PC program for remute controlling	4060218
R100 CT 300 W 220 V 600 Ncm and PC program for remute controlling	4060314

Standard reaction system DSS 01

We offer different sizes as standard reaction systems Typw DSS 01 from 250 ml up to 5 lit.

All systems have following advantages:

- A double wall or triplex wall reactor
- A lid with a nossle for vapor, one for solid feed, one for the temperature sensor, one for the feed and one reserve, which can be used also for a pH sensor.
- A funnel for the solid feet
- A strong stirrer motor
- A Diehm reversal stirrer for less viscouse- and a anchor stirrer for high viscouse liquids
- Stirrer material SS, PTFE -ceramic coated
- A mechanical seal for a stabil vacuum less than 1 mbar
- A temperature probe which is working also as disturbing pipe, with two sensors, variable adjustable in the hight and position
- A reflux divider with enough cooling capacity
- one dosing vessel
- one receiver vessel
- A vacuum divider with vacuum hoses and connections.
- A frame for the complete system
- A Options for temperature and pressure indication, overpressure devise, phase divider
a second feed vessel as well as a second receiver vessel.
- Thermostatic connections M 16 x 1,0
- Certificates for all details
- connections at the condensator:
2 x 10 mm cooling water connections,
GL 18 for vapor temperature below and safety temperature at the end
2 x GL 18 for vacuum
KF 15/3 for pressure sensor
over pressure device at the end of the condensator

Frame made of anodized aluminium connection parts and polished SS tubes.
Wide x depth x high 350 x 500 x 1400 to 1600 mm



Reactor DN	Reactor litre	feet ml	receiver ml	stirrer Ø	cooler m ²	bottom valve	Double wall reactorsystems		Triplex wall reactorsystems	
							ΔT 40K -90 to 180°C	ΔT 40K -20 to 60°C	ΔT 100K -90 to 180°C	
60	0,25	100	100	10	0,06	16 mm	3711100201	3711500201	3711600201	●
100	0,5	250	250	10	0,06	16 mm	3712100501	3712500501	3712600501	●
100	1,0	250	250	10	0,07	16 mm	3712101001	3712501001	3712601001	●
100	2,0	500	500	10	0,07	16 mm	3712102001	3712502001	3712602001	●
120	0,5	250	250	10	0,06	16 mm	3713100501	3713500501	3713600501	●
120	1,0	250	250	10	0,06	16 mm	3713101001	3713501001	3713601001	●
120	2,0	500	500	10	0,07	16 mm	3713102001	3713502001	3713602001	●
120	3,0	1000	1000	10	0,07	16 mm	3713103001	3713503001	3713603001	●
150	1,0	250	250	16	0,20	16 mm	3714101001	3714501001	3714601001	●
150	2,0	500	500	16	0,20	16 mm	3714102001	3714502001	3714602001	●
150	3,0	1000	1000	16	0,20	16 mm	3714103001	3714503001	3714603001	●
150	5,0	1000	1000	16	0,20	16 mm	3714105001	3714505001	3714605001	●

Spare reactors

DN	Capacity	Double wall reactors		Triplex reactors		Triplex reactors	
		ΔT 40K -100 to 230°		ΔT 40K -20 to 60°C		ΔT 100K -100 to 230°C	
●	60	250 ml	3311104KF15V16	3320504KF15V16	3320604KF15V16	●	
●	100	500 ml	3311110KF15V16	3320510KF15V16	3320610KF15V16	●	
●	100	1000 ml	3311113KF15V16	3320513KF15V16	3320613KF15V16	●	
●	100	2000 ml	3311118KF15V16	3320518KF15V16	3320618KF15V16	●	
●	120	500 ml	3311111KF15V16	3320511KF15V16	3320611KF15V16	●	
●	120	1000 ml	3311115KF15V16	3320515KF15V16	3320615KF15V16	●	
●	120	2000 ml	3311119KF15V16	3320519KF15V16	3320619KF15V16	●	
●	120	3000 ml	3311125KF15V16	3320525KF15V16	3320625KF15V16	●	
●	150	1000 ml	3311116KF15V16	3320516KF15V16	3320616KF15V16	●	
●	150	2000 ml	3311121KF15V16	3320521KF15V16	3320621KF15V16	●	
●	150	3000 ml	3311127KF15V16	3320527KF15V16	3320627KF15V16	●	
●	150	5000 ml	3311145KF15V16	3320545KF15V16	3320645KF15V16	●	

Second dosing or receiver sets

Capacity	Dosing set	Receiver set	Vacuum divider	
	Complete with all holders and pipelines usefull for all systems	Complete with all holders and pipelines usefull for all systems	with additional pipelines and holders	
100 ml	3700010100	3700020100	4 lines	3700040114
250 ml	3700010250	3700020250		
500 ml	3700010500	3700020500	5 lines	3700040115
1000 ml	3700011000	3700021000		
2000 ml	3700012000	3700022000		

Distillation sets

DN	Packed column set Complete with all holders				article no.	Phase divider set Complete with all holders and PTFE-pipelines
	column set	working length	additional frame tube length			
● 60	S 29	250 mm	0	3700030129	3700050022	●
● 100	S 29	250 mm	1800 mm	3700030229	3700050022	●
● 120	S 41	250 mm	1800 mm	3700030341	3700050022	●
● 150	S 41	250 mm	1800 mm	3700030441	3700050022	●

The distillation set is provided with a vacuum insulated column, rotulex ball connections. Below is a GL18 for the reflux from a phase divider and a GL 18 for a temperature sensor.



4 line indication

Indication box for 3 temperatures and pressure

provided with 2 additional 4 wire temperature probes, a pressure sensor and a cable for the reactor sensor. all needed holders are included.

Temperature range -199,0 to +850,0 °C or -327,8 to +1562,0 °F

Reaction system with agitator motor and double wall vessel 6 - 20 litres

92

The flexible swivel joint allowed a stressless impulsion of the stirrer also at high revs.

Optionally the cap can be provided with cuts and threads according to the customer's requirements thus adapting to all conditions of use.

The tempering vessel, which in series is fitted with metal hose connectors being suitable for temperatures up to **200°C**, generally can cope with an interior pressure of **0,5 bar**. Of course, the vessel is fully **vacuum compatible**. A provision for higher pressures can also be made. Besides, it can optionally be fitted with a turbo tempering unit ensuring a more steady tempering being considerably improved in the bottom area.

The rack components can be anodized aluminium with SS rods or complete SS.



The agitator's lock with its replaceable sealing lamellas guides the agitator on a great distance from both PTFE bearings.

The tempering connectors are fitted with **SS hose connectors** for metallhoses or hose-connectors 12 mm for rubber hoses. The sealings are resist **up to 200°C**

The new 10 to 20 mm bottom valve does not only close **almost deadvolume-free** but ensures a residue-free discharge out of the valve room itself as well.

A **compression spring** absorbs the pressure caused by the heat extension of the valve spindle and readjusts the spindle automatically during cooling down. **For problematic cases** the valve can optionally be tempered or fitted with a peek spindle. Especially in case of emerging crystals it can be provided with Viton- or Kalrez O-ring

measurements:
350 x 500 x 1300 mm

Reaction system 6 - 20 Litres

The table rack based system is already fitted to cope with most of the problems occurring in laboratories. When manufactured in series it is already suited for pressures up to 0,5 bar and temperatures up to 200° C. Optionally it can be designed for temperatures of up to 300° C or pressures up to 2 bar. The expandable system enables almost all reaction system applications occurring within a laboratory.

A PFA coated anchor stirrer for high-viscous media as well as a reversal stirrer for low-viscous media are integrated in the system. For spare agitators or agitators made of stainless steel please see the list of spare parts or the catalogue.

Capacity litres	Pressure max. bar	Necks at the Lid			Article Numbers	
		NS			DN 150	DN 200
		center	15° angled	vertical		
5	0,5	45	2 x 45	2 x 29	3505015200	3505020200
6	0,5	45	2 x 45	2 x 29	3506015200	3506020200
10	0,5	45	2 x 45	2 x 29	3510015200	3510020200
15	0,5	45	2 x 45	2 x 29	3515015200	3515020200
20	0,5	45	2 x 45	2 x 29	3520015200	3520020200

Standard Equipment

Glass reactor with death volume free, springloaded valve 20 mm, lid, O-ring made of seamless FEP coated silicone, ball beared mechanical seal, PFA coated SS anchor stirrer, PFA coated SS reversal stirrer, stirrer-motor coupling, stainless steel hose connectors to M16 x1, stainless steel frame with anodized aluminium connection parts including holder for the stirrer motor. Stainless steel holder for the reactors, manual, CE certificate.

Optional Accesories

Hose connectors:

Hose connectors for hoses 10 mm	188411510
Hose connectors for hoses 12 mm	188411512
Hose connectors for hoses M 24 x 1,5	188411524
Hose connectors for hoses M 30 x 1,5	188411530

Valves:

Larger valves: There are reactors with 16 mm, 20 mm and 25 mm valves available.

Valves for working with solid materials like cristals with O-ring made of viton or perfluorelastomere

20 mm tape with viton O-ring	1892004
20 mm tape with perfluorelastomere O-ring	1892003
25 mm tape with viton O-ring	1892504
25 mm tape with perfluorelastomere O-ring	1892503
20 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1892002-316°
25 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1892502-316°

Motors: electrical controled with digital display max. 500 rpm.

SD 180 W 220 V 100 Ncm	4060217
R100 C 300 W 220 V 150 Ncm and PC programm for remute controlling	4060218
R100 CT 300 W 220 V 600 Ncm and PC programm for remute controlling	4060314

Synthese System DSS 10 HC

Standard Reactions System DSS 10 HC

The reaction system DSS 10 HC is available from 6 to 20 litre. Ass systems we offer with following applications:

- Double wall or triplex wall reactor
- Lid with connections for vapor, solid feed, temperature probe, dosing system and additional nossle, for pH-probe useful.
- Powder dosing funnel
- Strong stirring motor, alo for less rpm
- DIEHM reversal stirrer for less viscouse liquids and anchor stirrer for high viscous liquids.
- Stirrer material SS, PTFE-ceramic coated
- Drying working mechanical seal for a stabil vacuum less then 1 mbar
- Temperature probe with two sensors, variable in position and height adjustable, working as disturbingbuffle
- Reflux divider with enought cooling capacity
- Dosing vessel
- Phase separator
- 2 distillation vessels
- Overpressure device
- Vakuum divider with PTFE hoses and connections to exhaust and vent the separate system parts, with connection possibility to nitrogen
- Game system made of anodized aluminium frame parts and SS tubes for the complete system.
- Indication for 3 temperatures and presure
- Integration posibility for a additional dosing vessel
- Temperature connections M 30 x 1,5
- Certifications for all components



Wide x Depth x Height ~750 x 550 x 2100 -2400 mm

Reactor DN	lit	Feet lit	Receiver lit	Stirrer Ø	cooler m ²	Bottom- valvel	Double wall Reaction Systems		Triplex wall Reaction Systems	
							ΔT 40K -90 to 180°C	ΔT 40K -20 to 60°C	ΔT 100K -90 to 180°C	ΔT 100K -90 to 180°C
200	6	2	2	16	0,2	16 mm	3725106003	3725506003	3725606003	
200	10	5	5	16	0,3	16 mm	3725110003		3725610003	
100	15	5	5	16	0,6	16 mm	3725115003		3725615003	
100	20	5	5	16	0,6	16 mm	3725120003		3725620003	

Spare reactors

DN	Inhalt	Double wall Reactors ΔT 40K -100 to 230°		Triplex wall Reactors ΔT 40K -20 to 60°C		Triplex wall Reactors ΔT 100K -100 to 230°C	
200	6 Lit		3311153KF25V16		3320553KF25V16		3320653KF25V16
200	10 Lit		3311170KF25V20				3320670KF25V20
200	15 Lit		3311178KF25V20				3320678KF25V20
200	20 Lit		3311187KF25V16				3320687KF25V20

All reactors can be used in all systems, but it is to keep, that the used stirrers and sensors have the right length. We inform also, that all measurements can be larger as in this information.

Balance weight system for the reactors

Because of the large weight of the reactors is it problematical to diasembla the reactors for the cleaning There for we suggest to use a lifting system with balance weights

Lift with balance weight 2 Kg for light reactos
 additional weight 5 Kg for large reactors
 additional weight 7 Kg for extra heavy reactors

91 450 34L01
 91 450 34L02
 91 450 34L03



Scrubber systems SC 001...020

Scrubber system to neutralize aggressive vapor

The systems are equipped with a spherical vessel 1...20 litre and specially for the laboratory designed.

The pump can be provided with a magnetic coupling or a mechanical seal.

The vessel has a GL 45 for filling and a valve 10 mm to empty the system.

A Bypass valve allows to adjust the pumping rate from 0 to 100%.

The system is assembled in a simple frame with SS bath

Typ	Capacity	Column	Pump	Article No.
SC 001	1 L	40 x 500	mechanical seal	3901001031
SC 001M	1 L	40 x 500	magnetic seal	3901001032
SC 002	2 L	40 x 500	mechanical seal	3901002031
SC 002M	2 L	50 x 500	magnetic seal	3901002032
SC 005	5 L	40 x 500	mechanical seal	3901004031
SC 005M	5 L	40 x 500	magnetic seal	3901004032
SC 010	10 L	80 x 800	mechanical seal	3901010031
SC 010M	10 L	80 x 800	magnetic seal	3901010032
SC 020	20 L	100 x 900	mechanical seal	3901020031
SC 020M	20 L	100 x 900	magnetic seal	3901020032

Larger systems up to 200 litre on request



Reaction system for laboratory use with double wall vessel 15 - 50 litres



Reaction system, 15 - 50 litres for standard jobs

This system is already fitted to cope with most of the problems occurring in laboratories. As standard it is already suited for pressures up to 0,5 bar and temperatures up to 200° C. Optionally it can be designed for temperatures of up to 300° C.

A PFA coated reversal stirrer for low-viscous media are integrated in the system. For spare agitators or agitators made of stainless steel please see the list of spare parts or the catalogue.

As option we deliver also Anchor stirrer or other special stirrers.

Cap. litres	Press. max. bar	Lid Adapter Necks			Article numbers	
		center	angled	vertical	DN 200	DN 300
15	0,5	NS 45	2 x NS 45, 2 x NS 29	1 x NS 29	3505015200	
20	0,5	NS 45	2 x NS 45, 2 x NS 29	1 x NS 29	3506020200	
20	0,5	KF 40	1 x NS 45, 1 x LF 100	2 x NS 29, 1 x KF 40		3506020300
30	0,5	NS 45	2 x NS 45, 2 x NS 29	1 x NS 29	3506030200	
30	0,5	KF 40	1 x NS 45, 1 x LF 100	2 x NS 29, 1 x KF 40		3506030300
40	0,5	KF 40	1 x NS 45, 1 x LF 100	2 x NS 29, 1 x KF 40		3506040300
50	0,5	KF 40	1 x NS 45, 1 x LF 100	2 x NS 29, 1 x KF 40		3506050300

Standard Equipment

Glass reactor with death volume free, springloaded valve 25 mm, lid, O-ring made of seamless FEP coated silicone, ball beared mechanical seal, PFA coated SS anchor stirrer, PFA coated SS reversal stirrer, stirrer-motor coupling, stainless steel hose connectors to M30 x1,5, stainless steel frame with anodized aluminium connection parts including holder for the stirrer motor. Stainless steel holder for the reactors, manual, CE certificate.

Optional Accesories

Hose connectors:

Optional we can provide the reactors with hose connections KF 15 instead of KF 25.

Hose connectors KF 15 for hoses M 24 x 1,5	188411524
Hose connectors KF 15 for hoses M 30 x 1,5	188411530
Hose connectors KF 25 for hoses M 16 x 1	188412516
Hose connectors KF 25 for hoses M 24 x 1,5	188412524

Valves:

Larger valves: There are reactors with 16 mm, 20 mm and 25 mm valves available.

Valves for working with solid materials like cristals with O-ring made of viton or perfluorelastomere

25 mm tape with viton O-ring	1892504
25 mm tape with perfluorelastomere O-ring	1892503
25 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1892002-316°
25 mm 300° high temperature tapes with O-ring made of perfluorelastomere	1892502-316°

Motors: electrical controled with digital display max. 500 rpm.

R100 C 300 W 220 V 150 Ncm and PC programm for remute controlling	4060218 *
R100 CT 300 W 220 V 600 Ncm and PC programm for remute controlling	4060314

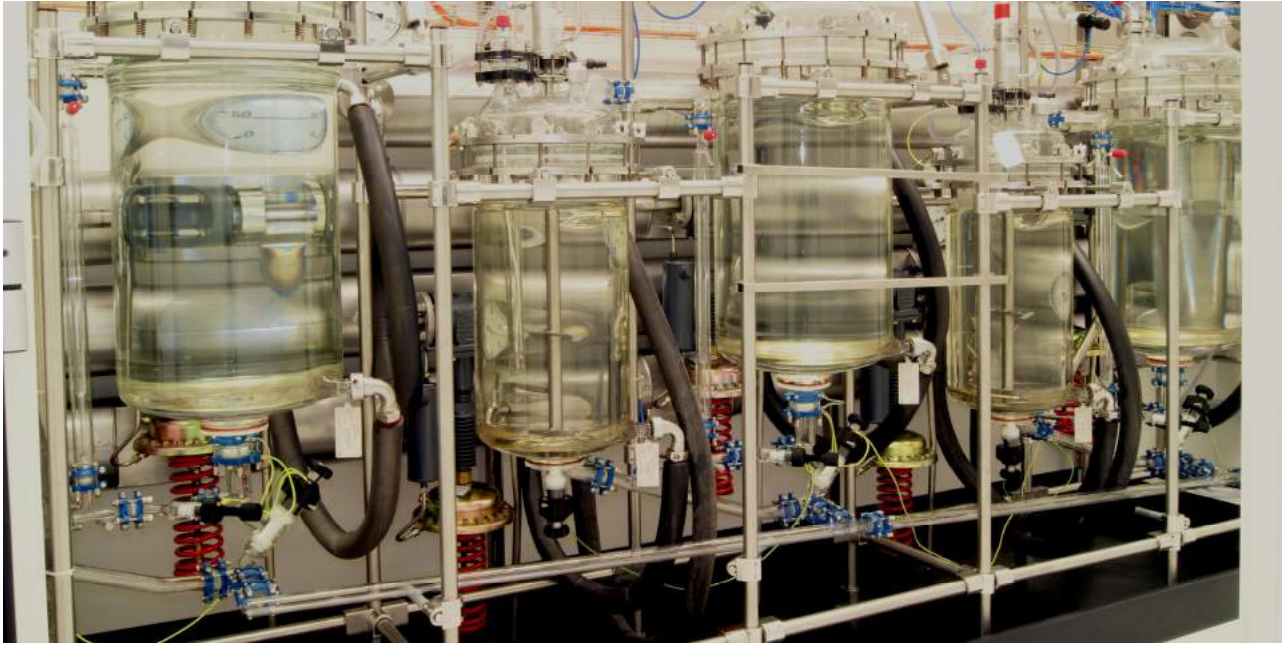
*Only for the very less viecouse liquids strong enough



Special designed systems

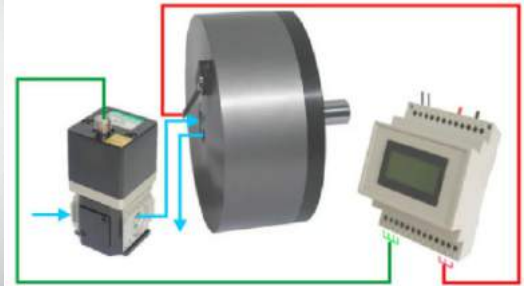
Together with our costumers we produce special systems, as needed with full automatical controlers.



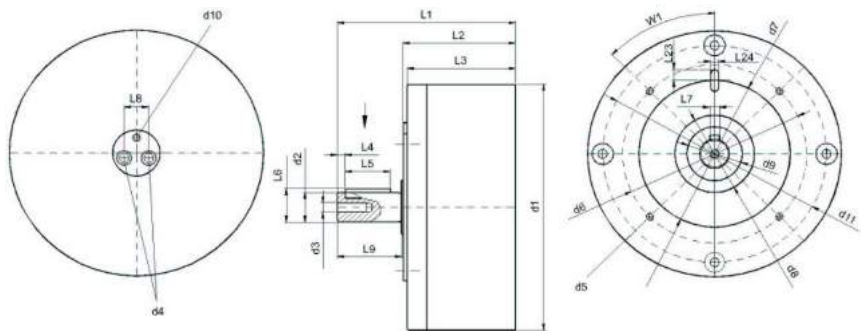




Small, strong piston airdrives for different applications, with integrated mechanical seal or chuck. With speed indicator or full automatic speed control. The motors are also available as ATEX motors. Minimal air consumption - only 10% of a rib motor!



speed +/- 10%



Type	Torque	L1	L2	L3	L4	L5	L6	L8	L9	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
450	4-2 Nm	78	52	50,5	3	18	16	10,6	25	99	14h6	M4x12	M6x0,75x8	M4x9	67	55h6	40	28	M5x5	87
900	8-3 Nm	92,5	66,5	65	3	18	16	10,6	25	99	14h6	M4x12	M6x0,75x8	M4x9	67	55h6	40	28	M5x5	87
1800	16-2 Nm	111	70	67,5	5	28	21,5	15,3	40	159	19h6	M6x18	R1/8x9	M6x10	115	95h6	40	35	M5x5	140
3600	32-3 Nm	133	92	89,5	5	28	21,5	15,3	40	159	19h6	M6x18	R1/8x9	M6x10	115	95h6	40	35	M5x5	140

Please ask us for this motors, we can provide it for your application.

speed 30 - 300 rpm



Stirring motor with digital display and automatic turning regulator

R50 D
 220 - 240V 50Hz 120W
 rpm 30 - 1600
 max torque 50 Ncm
 Art.no. 40 602 16

R100 SD
 220 - 240V 50Hz 120W
 rpm 50 - 2000
 max torque 100 Ncm at 1100 rpm
 Art.no. 40 602 16

Stirring motor with 2 line display, automatic turning regulator and automatic switch of at a max. torque.

R100 C
 220 - 240V 50Hz 220W
 rpm 40 - 2000
 max torque 150 Ncm
 Art.no. 40 602 18

R100 CT
 The same motor, but turns
 rpm 10 - 500 1/min
 max torque 600 Ncm
 Art.no. 40 603 14





Mechanical Gear Motor

Variable speed 0 - 390 rpm
Power supply 400 Volt 50Hz

Power Kw	Nm	Torque		Article No.
		at rpm	Nm at rpm	
0,12	4,0	1 - 200	2,55 390	4160501
0,25	10,0	1 - 170	5,0 390	4160502
0,37	16,0	1 - 150	7,4 390	4160503
0,55	16,0	1 - 220	11,0 390	4160505
0,75	16,0	1 - 300	14,7 390	4160507
1,1	35,0	1 - 200	21,0 390	4160511
2,2	42,0	1 - 260	55,0 390	4160520

Motors for using in explosion endangered area

Ex type:

EX e II T4 / ECII 2 G c/k T4

Power Kw	Nm	Torque		Article No.
		at rpm	Nm at rpm	
0,11	3,6	1 - 200	2,3 390	4160501-EX
0,25	10,0	1 - 170	5,0 390	4160502-EX
0,37	16,0	1 - 150	7,4 390	4160503-EX
0,55	16,0	1 - 220	11,0 390	4160505-EX
0,75	16,0	1 - 300	14,7 390	4160507-EX
1,1	35,0	1 - 200	21,0 390	4160511-EX
2,2	42,0	1 - 260	55,0 390	4160520-EX



Explosion protected Servo motors

In contrast to frequency motors, servo motors have the most torque at the less speed.

This property makes this motors, special to stirr high viscouse liquids, to the number one of the controlled motors.

We offer this motors special for the EX area starting at 0,37 Kw up to 2 Kw in different speed variants.

Also we deliver controller panels for mounting in a switch control box, triggered by RS 232, 0 - 20 mA or Profibus.

directory

bubble-cap tray column	69
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circulation evaporators	70
columns	63 - 67
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