

General information, which applies to all piers:

It is only permitted to exceed the contract depth after obtaining permission from the Port Authority. The contract depth is determined relative to NAP.

Distances between the various piers (Source: Rotterdam Port Authority):

- Distance between VP-3 East and VP-1 West: **200 metres**
- Distance between VP-1 East and VP-4 West: **235 metres**
- Distance between VP-4 East and VP-2 West: **235 metres**

Nautical guideline for safe navigation between various piers (Source: Rotterdam Port Authority):

Distance required for safe manoeuvring upon the arrival or departure of a vessel: 2x the width of the arriving or departing vessel & 60 metres.

For example: There is a ship of 25m wide at VP-3 East and two BAB ships with a total width of 85 metres on VP-1 West.

Question: Can another BAB be added to VP-3 East?

Reply: There are ships with a total width of 110 metres at the two piers. The distance between the piers is 200 metres in total.
The manoeuvring distance remaining is 200m - 110 m = 90 m. If we deduct 60 m from that, 30 m remain for BAB.
This distance is 2x the width of a vessel that is permitted to moor.
This means that the ship with a maximum width of 15 m will be permitted to moor alongside the vessel at VP-3 East.

Water density 7e Petroleumhaven Generally Ranges from 1025 kg/m³ at high to 1012 kg/m³ at low tide, depending on seasonal, tidal and meteorological influences.

Minimum UNDER KEEL CLEARANCE (Source: Tjipoort regeling Euro-Maasgeul)

- Draft to a max. of 17,39 meter: Minimum 0,3 meter / 1,1 ft
- Draft to a max. of 22,55 meter: Minimum 0,5 meter / 1,65 ft.

Minimum required mooring to ensure that a vessel can be safely moored (This standard is a guideline. The decision on the number of moorings required to safely moor a vessel rests with the captain of the relevant vessel.)

Between 20,000 tonnes and 100,000 tonnes DWT	Between 100,000 tonnes and 150,000 tonnes DWT	150,000 tonnes DWT and more.
3 front and rear moorings	3 front and rear moorings	3 or 4 front and rear moorings
2 breast lines, both front and rear	3 breast lines, both front and rear	3 breast lines, both front and rear
1 spring, both front and rear	2 springs, both front and rear	2 springs, both front and rear

Vopak Oil Rotterdam Pier Data

Avg. high tide water = NAP + 1.17 m.

Avg. low tide water = NAP - 0.47 metres.

No INLAND VESSELS that are required to DISPLAY CONES are permitted to anchor at VP-3 West, Calandsteiger, Tronoxsteiger, T-1 pier or T-3 pier.

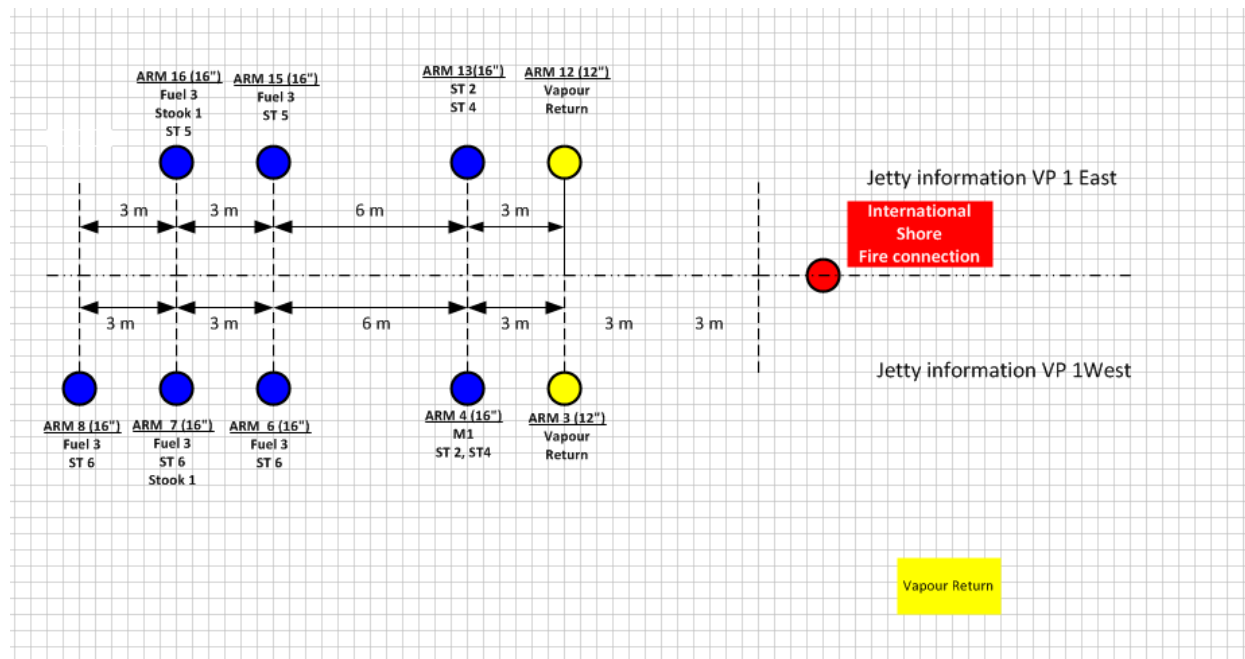
VINGERPIER 1 (Sea going vessels only)			K-1, K-2, K-3 PRODUCTS PERMITTED.			
Information about mooring/docking at Vingerpier 1	West	East	Information on the loading arms			
Port number:	5534	5533				
Max. displacement in metric tonnes on arrival	369,000	369,000	West	Arm 3	12"	Vapour return
Maximum length in metres		360		Arm 4	16"	
Minimum length in metres	See *	See *		Arm 6	16"	
Max. mooring width with BAB manipulations on opposite pier.	See nautical directive			Arm 7	16"	
Max. mooring width with BAB manipulations on opposite pier.	See nautical directive			Arm 8	16"	
Minimum parallel body length	n/a	n/a				
Maximum draft in meters NAP (Water depth)	21,65 m	21,65 m	East	Arm 12	12"	Vapour return
Maximum draft in metres NAP (Contract depth)	21,10 m	21.10 m		Arm 13	16"	
				Arm 15	16"	
				Arm 16	16"	
Minimum fender distance - ship manifold (in metres)	1.10	2.70				
Maximum fender distance - ship manifold (in metres)	7.60	9.20				
Minimum distance center manifold to driptray (in metres) for fixed loading arm support	0,78 m	0,78 m				
Pier deck / waterline distance to NAP:						
Lowest position of the loading arm connection point relative low tide water.	4	4				
Highest position of the loading arm connection point relative high tide water.	29	29				
Maximum mooring speed in metres / second	0.10	0.07				
VP-1 particulars with regards to mooring / docking:			Details regarding the loading arms:			
* Crude oil and fuel oil ships with a length of <200 m should be moored with the head on the inside because of the position of the loading arms. If necessary, the superintendent can decide to moor a ship BB or SB on the longitudinal side.			The connection point can be increased or decreased with maximum one reducer.			

Vopak Oil Rotterdam Pier Data

Avg. high tide water = NAP + 1.17 m.

Avg. low tide water = NAP - 0.47 metres.

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Distances between the vapour return line and the various loading arms on VP-1

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VINGERPIER 2 Sea going vessels only.		K-1, K-2, K-3 PRODUCTS PERMITTED.		
Information about mooring/docking at Vingerpier 2	West	East	Information on the loading arms	Size
Port number:	5528	5527		
Max. displacement in metric tonnes on arrival	341,000	135,000	West	Arm 1 12"
Maximum length in metres	375	250		Arm 2 12"
Minimum length in metres	n/a	n/a		Arm 3,4 16" tijdelijk
				Arm 5.6 16"
Max. width:	n/a	48 m		
Maximum permissible width BAB VP-2 East see particulars at 1 VP-2 East.	See spec. 1 VP-2 East		East	Arm 7,8 12"
				Arm 9 16"
Maximum permissible width BAB VP-2 West see nautical directive.	n/a			Arm 10 16"
Maximum draft in metres NAP (Water depth)	16,65 m	15,65 m		Arm 11 16"
Maximum draft in metres NAP (Contract depth)	16,00 m	15,00 m		
Maximum draft in feet NAP (Contract depth, including 1,65 ft keel clearance)	54.6	51.3	Details regarding the loading arms:	
Minimum fender distance - ship manifold (in metres)	2.50	2.50	The connection point can be increased or decreased with maximum one reducer.	
Maximum fender distance - ship manifold (in metres)				
Minimum distance center manifold to driptray (in metres) for fixed loading arm support	0,78 m	0,78 m	The loading arms are equipped with hydraulic clutches.	
Pier deck / waterline distance to NAP:			Spec. 1: BAB VP-2 EAST:	
Lowest position of the loading arm connection point relative to low tide. .	0.5	0.5	Before accepting BAB manipulations, the Planning Department must contact the Port Authority.	
Highest position of the loading arm connection point relative to high tide.	23	23		
Maximum mooring speed in metres / second	0.10	0.10		
Vapour return connection of 8" on both the West and the East. Restriction: Vapour recovery cannot be used simultaneously on both sides.				
Information about mooring/docking at Vingerpier 2				
If necessary, the superintendent can decide to moor a ship BB or SB on the longitudinal side.				

Vopak Oil Rotterdam Pier Data

Avg. high tide water = NAP + 1.17 m.

Avg. low tide water = NAP - 0.47 metres.

No INLAND VESSELS that are required to DISPLAY CONES are permitted to anchor at VP-3 West, Calandsteiger, Tronoxsteiger, T-1 pier or T-3 pier.

VINGERPIER 3 East. Sea going vessels and barges. VINGERPIER 3 West. Barges only.			FUEL OIL and MAXIMUM K-3 PRODUCTS PERMITTED.				
Information about mooring/docking at Vingerpier 3 Port number:	West 5536	East 5537	Information on the loading arms		Size	Connection	Buitendiameter
Max. displacement in metric tonnes on arrival	25,000	100,000	West	Arm 1	12"	12"ASA 150 lbs	482.6 mm
Maximum length in metres	150	230		Arm 2	12"	10"ASA 150 lbs	406.4 mm
Minimum length in metres	n/a	n/a	East	Arm 5	12"	12"ASA 150 lbs	482.6 mm
Ma x. mooring width with BAB manipulations on opposite pier *	See nautical directive			Arm 6	12"	12"ASA 150 lbs	482.6 mm
Maximum draft in metres NAP (Water depth)	5.65	14.65	Details regarding the loading arms: The loading arms on VP-3 are equipped with hydraulic clutches. **When connecting two loading arms the distance between the two manifold connections must be a minimum of 1.5 metres and a maximum of 3 metres. The connection point can be increased or decreased with maximum one reducer.				
Maximum draft in metres NAP (Contract depth)	5,00	14,00					
Minimum fender distance - ship manifold (in metres)	1.50	1.50**					
Maximum fender distance - ship manifold (in metres)							
Minimum distance center manifold to drip tray (in metres) for fixed loading arm support	0.78 m	0.78 m					
Pier deck / waterline distance to NAP:							
Lowest position of the loading arm connection point relative to low tide water (N.A.P.)	2.4	2.4					
Highest position of the loading arm connection point relative to high tide water (N.A.P.).	13.8	13.8					
Maximum mooring speed in metres / second	0.10	0.09					
VP-3 particulars with regards to mooring / docking:							
- ONLY inland vessels permitted to moor on the western side of VP-3. - BAB at VP-3 West is NOT allowed. If necessary, the superintendent can decide to moor a ship BB or SB on the longitudinal side.							

Vopak Oil Rotterdam Pier Data

Avg. high tide water = NAP + 1.17 m.

Avg. low tide water = NAP - 0.47 metres.

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VINGERPIER 4			K-1, K-2, K-3 PRODUCTS PERMITTED.				
Information about mooring/docking at Vingerpier 4 Sea platform	West	East	Information on the		Size	connection	buitendiameter
Port number	5531	5530	loading arms				
Max. displacement in metric tonnes on arrival	177,500	177,500	West	Arm 16	16"	ASA 150 lbs	395 mm
Maximum length in metres	285	285		Arm 4	10"	DN250PN10	
Minimum length in metres	n/a	n/a		Arm 5	12"	ASA 150 lbs	
Max. mooring width with BAB manipulations on opposite pier.	See nautical directive			Arm 6	12"	ASA 150 lbs	
Max. mooring width with BAB manipulations on opposite pier.	See nautical directive			Arm 7	16"	ASA 150 lbs	
Maximum draft in metres NAP (Water depth)	18,50 m	18,50 m	East	Arm 15	16"	ASA 150 lbs	395 mm
Maximum draft in metres NAP (Contract depth)	17,65 m	17,65 m		Arm 11	10"	DN250PN10	
				Arm 12	12"	ASA 150 lbs	
				Arm 13	12"	ASA 150 lbs	
Maximum mooring speed in metres / second	0.1	0.1		Arm 14	16"	16" or 10" ASA 150lbs/DN250	
Information about mooring/docking at VP 4 Barge platform	West	East	Information on the		Size	connection	buitendiameter
Port number	O-5549	O-5550	loading arms				
Max. displacement in metric tonnes on arrival	23,600	23,600	West	Arm 1	10"	DN250PN10	395 mm
Maximum length in metres	150	150		Arm 2	10"	DN250PN10	395 mm
Minimum length in metres	n/a	n/a		Arm 3	10"	DN250PN10	395 mm
Maximum draft in metres NAP (Water depth)	6.65 m	6.65 m	East	Arm 8	10"	DN250PN10	395 mm
Maximum draft in metres NAP (Contract depth)	6,00 m	6,00 m		Arm 9	10"	DN250PN10	395 mm
Maximum mooring speed in metres / second	0.25	0.25		Arm 10	10"	DN250PN10	395 mm
VP-4 particulars with regards to mooring / docking:			Details regarding the loading arms:				
Minimum fender distance / ship manifold (in metres)	1 mtr	1 metre	The connection point can be increased or decreased with maximum one reducer.				
Minimum distance center manifold to driptray (in metres) for fixed loading arm support	0.78 m	0.78 m					
Pier deck / waterline distance to NAP:	+ 5.75 m	+ 5.75 m					
Lowest position of the loading arm connection point relative to low tide water (NAP – 0.47 metre)	+ 1.5 m	+ 1.5 m					
Highest position of the loading arm connection point relative to high tide water (NAP + 1.17 metres)	9.50 metres	9.50 metres					
12" and 16" LOADING ARMS							
Minimum fender distance / manifold (in metres)	3 mtr	3 metres					
Minimum deck / ship manifold height in metres for fixed loading arm support	0.8 m	0.8 m					

Vopak Oil Rotterdam Pier Data

Avg. high tide water = NAP + 1.17 m.

Avg. low tide water = NAP - 0.47 metres.

No INLAND VESSELS that are required to DISPLAY CONES are permitted to anchor at VP-3 West, Calandsteiger, Tronoxsteiger, T-1 pier or T-3 pier.

Pier deck / waterline distance to NAP:	+ 5.75 m	+ 5.75 m
Lowest position of the loading arm connection point relative to low tide water (NAP – 0.47 metres)	+ 5 metres	+ 5 metres
Highest position of the loading arm connection point relative to high tide water (NAP + 1.17 metres)	18 metres	18 metres

		Neckarhaven						
Steiger: Portnumber:	NH 1 6012	NH 2 6011	NH 3 6010	NH 4 6014	NH 5 6014	Special Neckarhaven piers. Piers suitable for K-1 and K-3 products.		
						Information on the loading arms		
						Multi product connection		
						Steigers en laadarmen		Leidingen
Maximum mooring speed in metres / second .	0,1	0,1	0,1	0,1	0,1	NH-01, arm 14: DN200PN10		N-20, N-21, N-22, N-23, N-24
Maximum length in metres	135	135	135	135	135	NH-02, arm 16: DN200PN10		N-20, N-21, N-22, N-23, N-24
Minimum length in metres.	67	67	67	67	67	NH-03, arm 18: DN200PN10		N-20, N-21, N-22, N-23, N-24
Maximum width in metres.	n.v.t.	21 m.	n.v.t.	n.v.t.	n.v.t.	NH-4/5, arm 11: DN200PN10		N-31, N-32, N-33
Maximum displacement in tonnes upon arrival.	11.500	11.500	11.500	11.500	11.500	NH-4/5, arm 12: DN200PN10		N-31, N-32, N-33
Maximum draft in metres NAP (Water depth)	5,15 m	5,15 m	5,15 m	5,15 m	5,15 m			
Maximum draft in metres NAP (Contract depth)	4,50 m	4,50 m	4,50 m	4,50 m	4,50 m			
The following data apply to the loading arms 11, 12, 14, 16 and 18						Jet Fuel	Connection	Shore lines (Loading)
Minimum fender distance - ships manifold (in metres)	1,50	1,50	1,50	1,50	1,50	NH-01, arm 15	DN250PN10	N-50, N-51, N-52
Maxium fender distance - ships manifold (in metres)	6,60	6,60	6,60	6,35	6,35	NH-02, arm 17	DN250PN10	N-50, N-51, N-52
Lowest position of the loading arm connection point relative to low tide water (NAP – 0.47 metre).	0,50	0,50	0,50	0,50	0,50	NH-03, arm 19	DN250PN10	N-50, N-51, N-52
Highest position of the loading arm connection point relative to high tide water (NAP + 1.17 metres)	7,50	7,50	7,50	7,50	7,50	NH-4/5.Arm 13 DN250PN10 (Reserve MIDEX)		N-50, N-51, N-52
Size loading arms	8"	8"	8"	8"	8"	NH-4/5, arm 10 DN200PN10 (VPRenergy))		N-30
The following data apply to the loading arms 13, 15, 17 and 19.						Jet Fuel	Connection	Shore lines (loading)
Minimum fender distance - ships manifold (in metres)	1,50	1,50	1,50	1,50	1,50	NH-01, arm 15	DN250PN10	N-53
Maxium fender distance - ships manifold (in metres)	6,60	6,60	6,60	6,60	6,60	NH-02, arm 17	DN250PN10	N-53
Lowest position of the loading arm connection point relative to low tide water (NAP – 0.47 metre)	-1,60	-1,60	-1,60	-1,60	-1,60	NH-03, arm 19	DN250PN10	N-53
Highest position of the loading arm connection point relative to high tide water (NAP + 1.17 metres)	10,10	10,10	10,10	10,10	10,10			
Size loading arms	10"	10"	10"	10"	10"			
						B When mooring barges on NH-03:		

Vopak Oil Rotterdam Pier Data

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Avg. low tide water = NAP - 0.47 metres.

No INLAND VESSELS that are required to DISPLAY CONES are permitted to anchor at VP-3 West, Calandsteiger, Tronoxsteiger, T-1 pier or T-3 pier.

Ensure that the barge is moored as far as possible towards the dam wall.
 When mooring barges on NH-02:
 It is not permitted to moor 2 coupling connections that are connected next to each other due to the space between piers NH 1 and 2.

Pier:	T-1	T-2	T-3	Special T piers.	
Port number:	5535	5532	5531		
Maximum length in metres	135	135	135	Details:	
Minimum length in metres	45	67	67	T-1 pier:	K-3
Maximum displacement in tonnes upon arrival.	11.500	11,500	10.000	T-1 Arm 1 (8")	
Maximum draft in metres NAP (water depth)	6.65 m	6.65 m	6.65 m	T-2 pier:	K-1, K-2 and K-3
Maximum draft in metres NAP (contract depth)t	6,00 m	6,00 m	6,00 m	T-2 Arm 1 (6")	
Minimum fender distance - manifold (in metres)	1.15	1.15	1.15	T-2 Arm 2 (8")	
Maximum fender distance - manifold in metres	6.40	6.40	6.40	T-2 Arm 3 (8")	
Minimum manifold distance - NAP (Vertical) in m.	0.50	0.50	0.50	T-3 pier:	K-3
Maximum manifold distance - NAP (Vertical) in m.	12.50	12.50	12.50	T-3 Arm 1 (8")	
Maximum mooring speed	0.15	0.15	0.15		

Pier:	TRONOX pier		Calandsteiger #	Tronox and Calandsteiger particulars:	
Port number:			5521		
	Outside	Inside		Details	
Maximum length in metres	135	110	110	Tronoxsteiger	K-3
Maximum width in metres	n/a	n/a	13.5		
Minimum length in metres	67	67	n/a	Arm 8 (8")	
Maximum displacement in tonnes upon arrival.	11,500	2,400	11,500	Arm 9 (8")	
Maximum draft in metres NAP	6.65	6.65	6.00	Calandsteiger:	K-3
Maximum draft in feet NAP	21.8	21.8	19.6	Arm 1 (8") = isolated.	
Minimum fender distance - manifold (in metres)	1.20	1.20	2.00	Arm 2 (8") = not isolated	
Maximum fender distance - manifold in metres	4.20	4.20	6.00	# Calandsteiger: It is only permitted to exceed the max. length and width after obtaining permission from the Port Authority.	
Minimum manifold distance - NAP (Vertical) in m.	0.20	0.20	0.50	# Calandsteiger escape routes suitable for vessels of 135 m.	
Maximum manifold distance - NAP (Vertical) in m.	6.50	6.50	6.00		
Maximum mooring speed	0.1	0.1	0.12		

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Avg. low tide water = NAP - 0.47 metres.

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 are permitted to anchor at VP-3 West, Calandsteiger,
 Tronoxsteiger, T-1 pier or T-3 pier.