

Features of the UNA series

- Unaffected by back pressure and condensate temperature
- No loss of live steam due to continuous water seal at the seat
- No banking-up of condensate even with extreme load and pressure fluctuations
- Particularly well suited for heat exchangers controlled from the steam side
- Unaffected by dirt
- Automatic thermostatic air-venting (Duplex design)
- Ideal for discharging cold condensates, distillates and condensates derived from chemical products (Simplex design)
- Repairable in-line
- Thanks to the rolling ball valve only reduced operating forces and small control units are required (compact, lightweight design for large flowrates)
- Internals made from corrosion-resistant stainless steels
- UNA 14, 16, 45, 46, 38: Body can be easily repositioned to convert the flow direction from left to right or vice versa or to change to vertical flow.
- UNA 45, 46 DN 40-65 optionally available with MAX controller for very large flowrates (conversion standard -> MAX controller not possible).

Application

Condensate discharge without banking-up, even at varying operating conditions and back pressure. Automatic air-venting (Duplex design). Also for the discharge of cold condensates and distillates, and for draining gas and compressed air systems (Simplex design).

Pressure/Temperature Ratings and Designs

Type	PN / Class	Δ PMX [bar]	Material		Max. Pressure / Temp. Rating ¹⁾			
			EN	ASTM	PMA [bar]	TMA [°C]	p / T [bar/°C]	
UNA 14	PN 25	13	5.3103	–	25.0	350	19.4 / 200	15.0 / 350
UNA 16	PN 40	22	1.0460 / 1.0619	A105 / A216-WCB	40.0	400	25.8 / 300	23.1 / 400
UNA 45	PN 40 / CL300	32	1.0460 / 5.3103	A105 / (A395)	40 / 51.1	350 / 345	33.3 / 200 43.8 / 200	25.7 / 350 37.8 / 345
UNA 46	PN 40 / CL300	32	1.0460 / 1.0619	A105 / A216WCB	40 / 51.1	450 / 425	27.6 / 300 39.8 / 300	13.1 / 450 28.8 / 425
UNA 27h ³⁾	PN 63	45	1.5419	A217-WC1 ²⁾	63.0	450	54.0 / 300	43.5 / 450
UNA 38	PN 100	80	1.5415/ 1.7357	A182-F1 / A217-WC6 ²⁾	100.0	530	69.0 / 450	22.3 / 530
UNA 38 High-temperature	PN 100	80	1.7335/ 1.7357	A182-F12 / A217-WC6 ²⁾	100.0	530	83.7 / 450	32.4 / 530
UNA 39	PN 160	140	1.7335	A182-F12	160.0	550	104.3 / 500	37.3 / 550
UNA-Special Type 62B	PN 16	16	1.0425	A516Gr-60 ³⁾	16.0	300	11.3 / 250	10.2 / 300
UNA-Special	PN 25	22	1.0619	A216-WCB	25.0	400	22.0 / 200	14.8 / 400
UNA	PN 25	22	1.0619	A216-WCB	25.0	400	22.0 / 200	14.8 / 400
UNA-Special	PN 63	45	1.5419	A217-WC1 ²⁾	63.0	400	35.0 / 300	29.8 / 400
UNA 16A	STAINLESS STEEL	PN 40	1.4404 / 1.4408	A182-316L / A351-CF8M	40.0	300	29.3 / 200	25.8 / 300
UNA 46A		PN 40 / CL300	32	1.4404 / 1.4408	F316L / CF8M	40 / 41.4	450 / 425	27.6 / 300 26.1 / 300

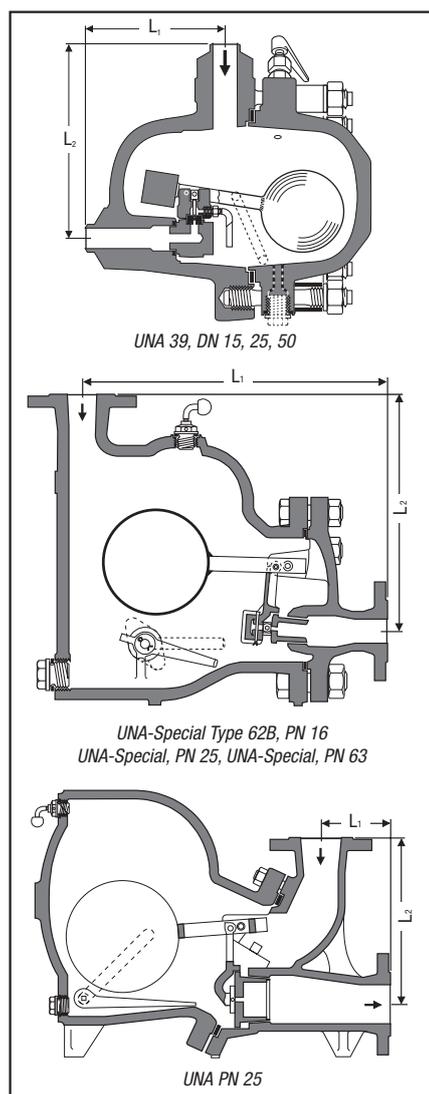
¹⁾ Limits for body/cover. Functional requirements may restrict the use to below the limits quoted.

For full details on limiting conditions depending on end connection and type of regulator see data sheet.

²⁾ ASTM nearest equivalent is stated for guidance. Physical and chemical properties comply with EN.

³⁾ These types/materials are only available for design h for installation in horizontal lines.

⁴⁾ If the operating temperatures exceed 300 °C intercrystalline corrosion may occur. Do not subject the equipment to operating temperatures higher than 300 °C unless intercrystalline corrosion can be ruled out.



Simplex: Float control (without thermostatic bellows)
Duplex: Flow control + automatic air-venting
Simplex-R: Float control + inner vent pipe

Available End Connections and Overall Length

Type	Connection	Overall length (L) in mm					
		DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 40 1 1/2"	DN 50 2"	DN 65 2 1/2"
UNA 14h, 14v	Flanged EN PN 25	150	150	160	–	–	–
	Screw sockets	95	95	95	–	–	–
UNA 16h, 16v, UNA 16Ah, 16Av	Flanged EN PN 40	150	150	160	–	–	–
	Flanged ASME 150 RF	150	150	160	–	–	–
	Screw sockets	95	95	95	–	–	–
	Socket-weld (SW)	95	95	95	–	–	–
	Butt-weld (BW)	200	200	200	–	–	–
UNA 45 UNA 46 UNA 46A	Flanged EN PN40	150	150	160	230	230	290
	Flanged ASME C1150	150	150	160	241	267	292
	Flanged ASME C1300	150	150	160	241	267	292
	Screw ISO-G	95	95	95	165	165	–
	Screw socket NPT	95	95	95	165	165	–
	Socket-weld end (SW) EN/ASME	95	95	95	165	–	–
	SW via transition piece EN/ASME	–	–	–	–	267	–
	SW via transition piece EN	–	–	–	–	–	292
	SW via transition piece ASME	–	–	–	–	–	292
	Butt-weld end via transition piece EN	200	200	200	241	267	292
	Butt-weld end via transition piece ASME	200	200	200	241	267	292
UNA 27h ¹⁾ and UNA 38	Flanged EN PN 63/PN 100	300	300	300	420	416	–
	Flanged ASME 600 RF	300	300	300	421	427	–
	Socket-weld / SW via transition pieces	300	300	300	420 ²⁾	420 ²⁾	–
	Butt-weld / BW via transition pieces	300	300	300	420 ²⁾	420 ²⁾	–
UNA 39		L ₁ /L ₂		L ₁ /L ₂		L ₁ /L ₂	
	Flanged EN PN 160	215/285	–	230/300	–	245/315	–
	Flanged ASME 900 RF	240/310	–	250/320	–	280/350	–
	Butt-weld (BW)	170/240	–	170/240	–	170/240	–

¹⁾ not available as DN 15 + DN 20 ²⁾ UNA 38 socket-weld (SW) ends and butt-weld (BW) ends DN 40 + DN 50: 300 mm, SW and BW via transition pieces: 420 mm

Type	Connection	Length L ₁ /L ₂ in mm				
		DN 50 2"	DN 65 2 1/2"	DN 80 3"	DN 100 4"	
UNA-Special Type 62B, PN 16	Flanged EN PN 16	L ₁	–	470	490	700
		L ₂	–	395	420	595
UNA-Special PN 25	Flanged EN PN 25	L ₁	445	470	–	–
		L ₂	345	395	–	–
UNA PN 25	Flanged EN PN 25	L ₁	–	–	140	140
		L ₂	–	–	335	400
UNA-Special PN 63	Flanged EN PN 63	L ₁	–	565	690	700
		L ₂	–	400	435	450

Available Designs

Type	End connection options			Orifice (AO) for max. differential pressure	Control unit		
	horizontal	vertical	angle pattern		Simplex	Duplex	Simplex-R
UNA 14	x ¹⁾	x ¹⁾		AO 4, 13	x	x	x
UNA 16, 16A	x ¹⁾	x ¹⁾		AO 4, 13, 22	x	x	x
UNA 45, UNA 46, UNA 46A	x ¹⁾	x ¹⁾		AO 2, 4, 8, 13, 22, 32, 4 MAX ⁴⁾ , 8 MAX ⁴⁾ , 13 MAX ⁴⁾ , 22 MAX ⁴⁾ , 32 MAX ⁴⁾	x	x	
UNA 27h	x			AO 16, 28, 45	x	x	
UNA 38	x ¹⁾	x ¹⁾		AO 50, (64), 80, 80 MAX	x	x	
UNA 39			x	AO 80, 110, 140, 140 MAX	x		
UNA-Special Type 62B, PN 16			x	AO 2 ⁵⁾ , 3.5 ⁴⁾ , 5, 10, 16	x ⁶⁾	x ²⁾⁷⁾	
UNA-Special PN 25			x	AO 2 ⁵⁾ , 3.5 ⁴⁾ , 5, 10, 16, 22	x ⁶⁾	x ⁷⁾	
UNA PN 25			x	AO 2, 3.5, 5, 8, 12, 16, 22	x ⁶⁾		
UNA-Special PN 63			x	AO 16, 22, 32, 40, 45	x ⁶⁾		

¹⁾ Connection orientation can be changed on site, trap body for horizontal-right available

²⁾ This design is not available for DN 100 mm

³⁾ This design is not available for DN 80 mm

⁴⁾ This design is not available for DN 65 mm

⁵⁾ This design is not available for DN 50 mm

⁶⁾ Simplex: Flow control + hand vent valve + float lifting lever

⁷⁾ Duplex: Flow control + automatic air-venting

^{*)} DN 40, DN 50, 65

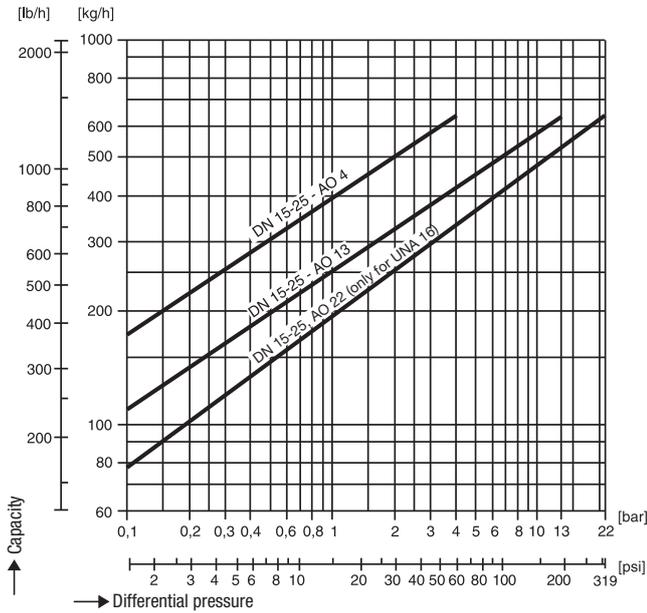
Optional Items for Ball-Float Traps

Item	Type
Sightglass cover	UNA 45
Cover for installing electrodes	UNA 45
Float lifting lever with gasket	UNA 45, 46, 46 A, 27 h, 38
Vent valve with gasket (for Duplex design)	UNA 45, 46, 46 A, 27 h, 38
Inner bypass (adjustable)	UNA 45, 46, 46 A

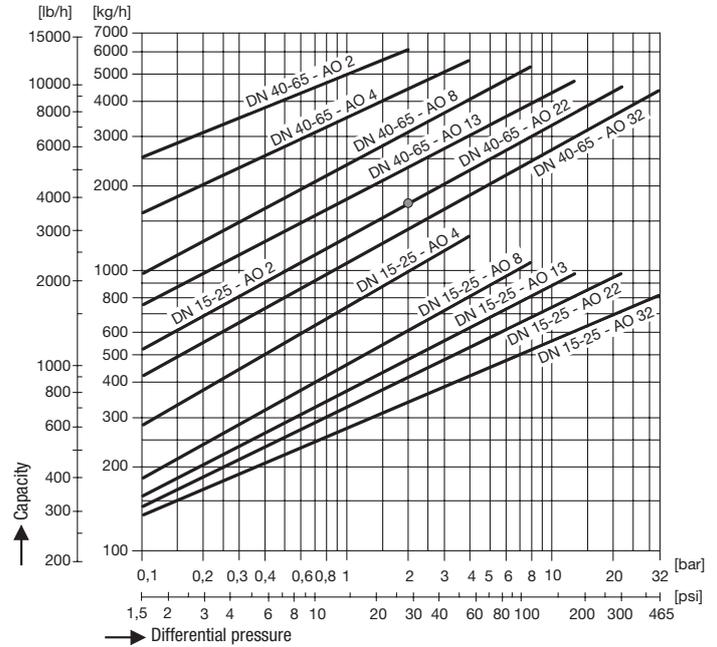
Capacity Charts

The charts show the maximum hot condensate capacities for the range of float-controlled orifices (AO) and sizes available.

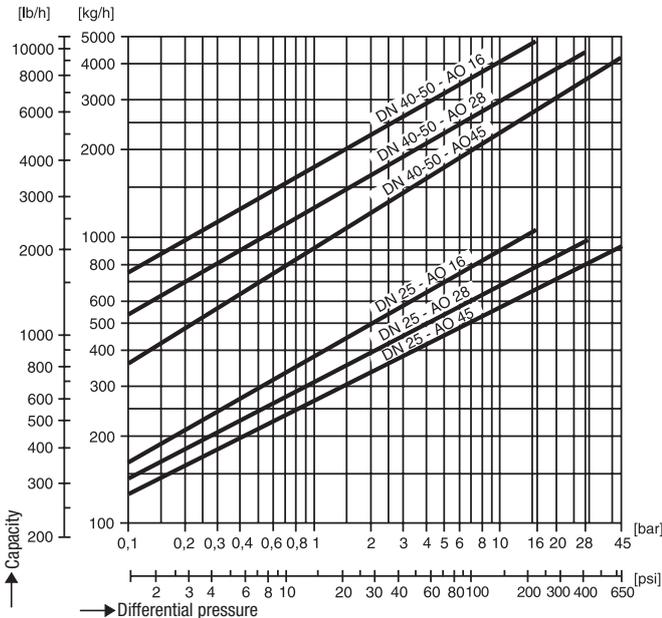
UNA 14, UNA 16, UNA 16A



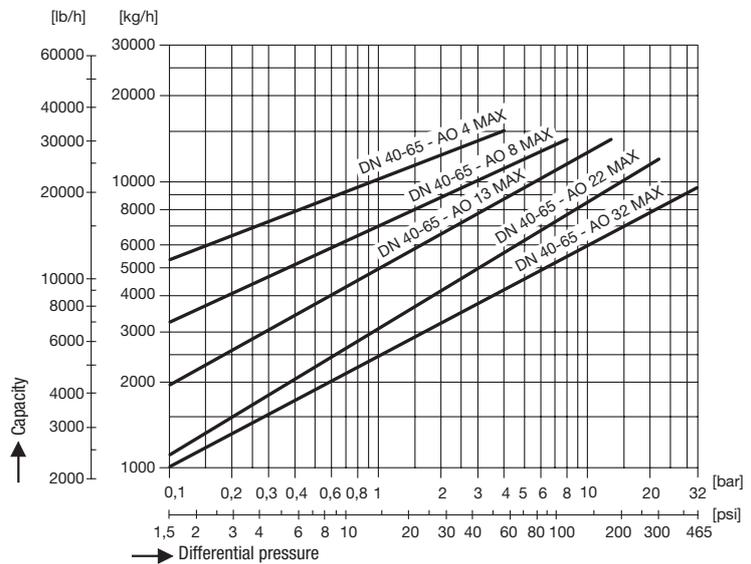
UNA 45, UNA 46, UNA 46A



UNA 27 h



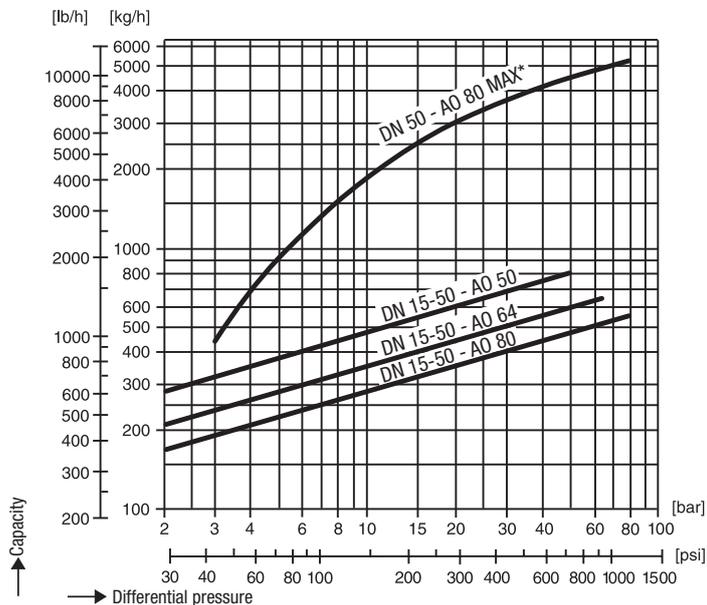
UNA 45 MAX, UNA 46 MAX, UNA 46A MAX



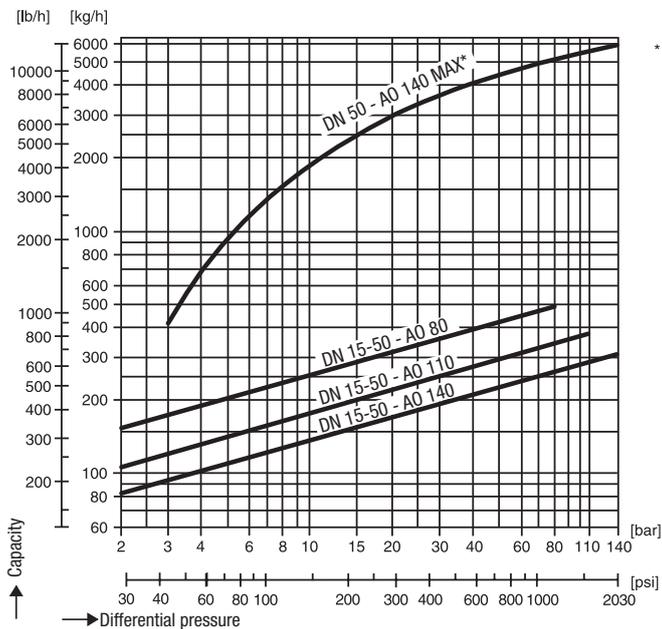
Capacity Charts

The charts show the maximum hot condensate capacities for the range of float-controlled orifices (AO) and sizes available.

UNA 38



UNA 39

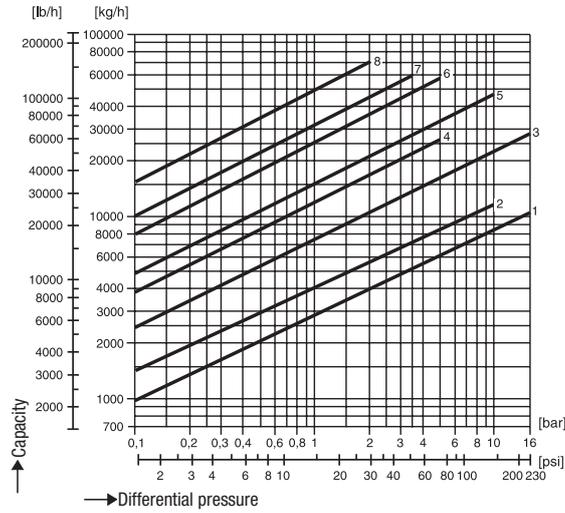


* Traps with small end connection sizes do not reach the flowrates indicated in this chart.

Capacity Charts

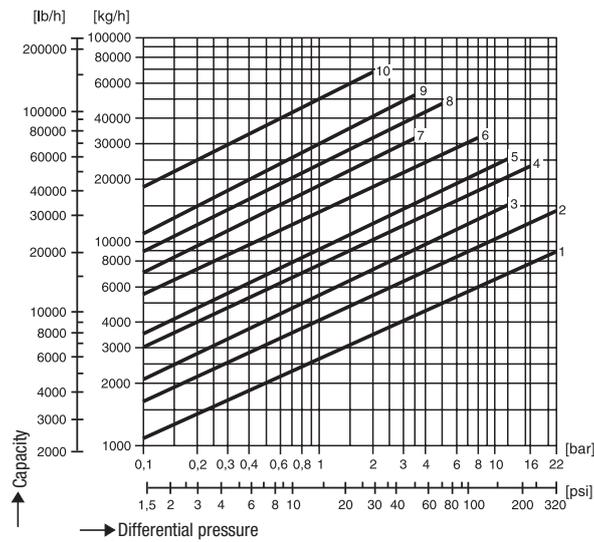
The charts show the maximum hot condensate capacities for the range of orifices (AO) and sizes available.

UNA-Special Type 62B, PN 16



Available orifices (AO)		
1	DN 80	AO 16
2	DN 80	AO 10
3	DN 100	AO 16
4	DN 80	AO 5
5	DN 80	AO 3.5
	DN 100	AO 10
6	DN 100	AO 5
7	DN 100	AO 3.5
8	DN 100	AO 2

UNA PN 25, DN 80 and 100

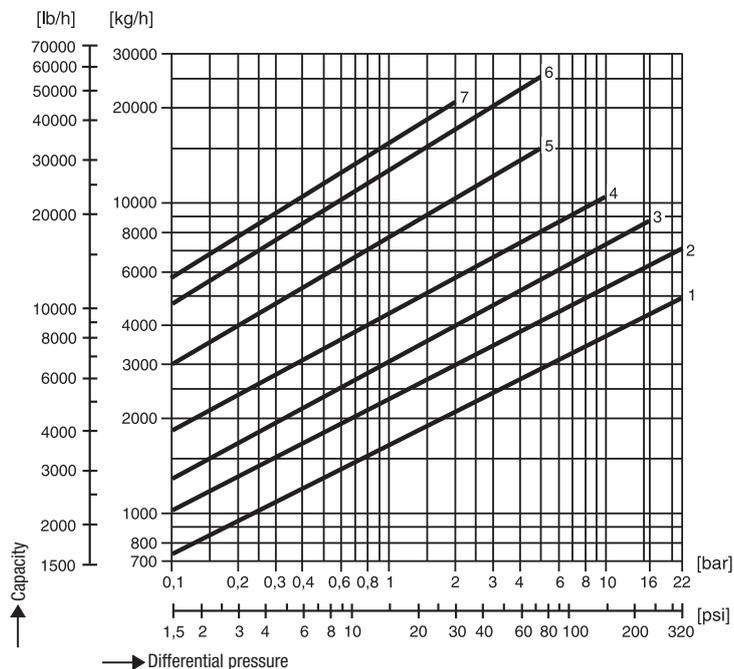


Available orifices (AO)		
1	DN 80	AO 22
2	DN 80	AO 16
	DN 100	AO 22
3	DN 80	AO 12
4	DN 100	AO 16
5	DN 80	AO 8
	DN 100	AO 12
6	DN 80	AO 5
	DN 100	AO 8
7	DN 80	AO 3.5
8	DN 100	AO 5
9	DN 80	AO 2
	DN 100	AO 3.5
10	DN 100	AO 2

Capacity Charts

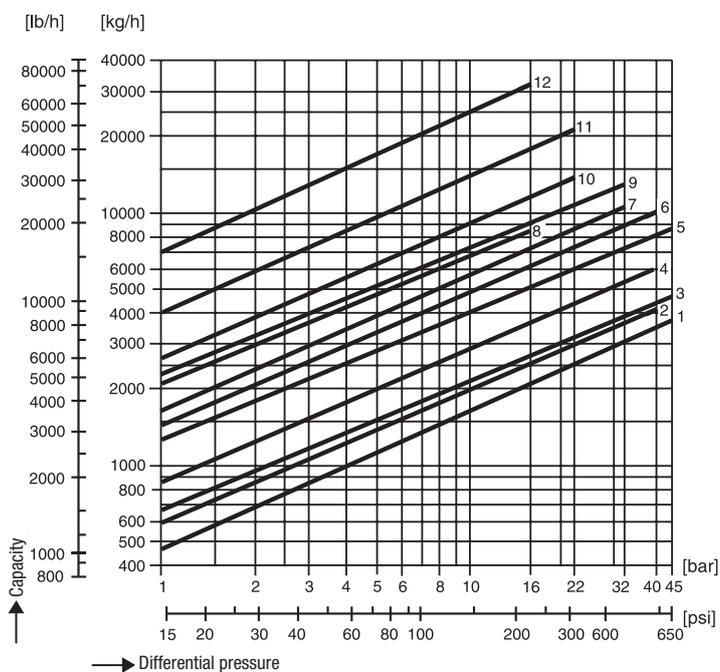
The charts show the maximum hot condensate capacities for the range of orifices (AO) and sizes available.

UNA-Special PN 25, DN 50 and 65



Available orifices (AO)		
1	DN 50	AO 22
2	DN 50	AO 16
	DN 65	AO 22
3	DN 50	AO 10
	DN 65	AO 16
4	DN 65	AO 10
5	DN 50	AO 5
	DN 65	AO 5
6	DN 50	AO 3.5
	DN 65	AO 5
7	DN 65	AO 2

UNA-Special PN 63 (PN 40)



Available orifices (AO)		
1	DN 65	AO 45
2	DN 65	AO 40
3	DN 80	AO 45
4	DN 65	AO 32
	DN 80	AO 40
5	DN 100	AO 45
6	DN 65	AO 22
	DN 100	AO 40
7	DN 80	AO 32
8	DN 65	AO 16
9	DN 100	AO 32
10	DN 80	AO 22
11	DN 80	AO 16
	DN 100	AO 22
12	DN 100	AO 16