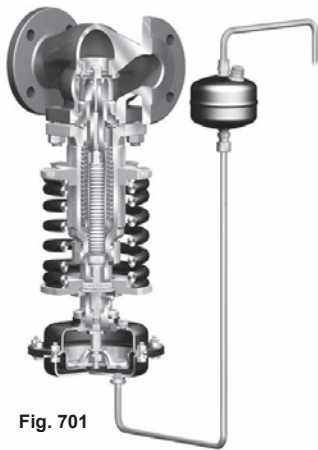
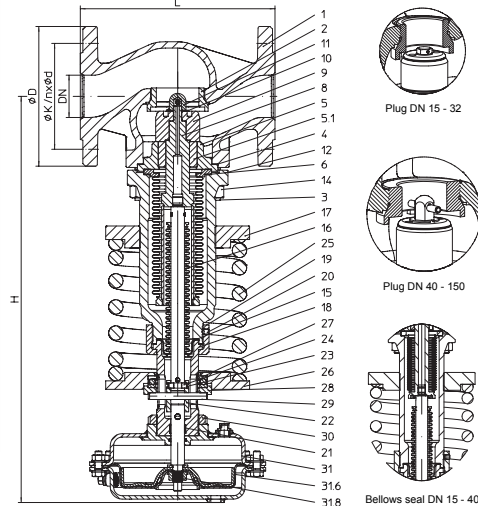


Pressure Reducing Valve - Direct Acting DN 15-100 with a Diaphragm Actuator
Fig. 701

Fig. 701

Features

- Compact design
- Construction without pillars
- Exact and easy adjustment
- Diameter independent ranges
- Simple change of spring and actuator
- 5 exchangeable actuator sizes
- 3 exchangeable spring sizes
- Pressure balanced by stainless steel bellow
- Spindle sealing via stainless steel bellow
- Secondary stem sealing (optional)
- Tapered seat ring
- Screwed seat ring
- Kvs-values reduceable
- Flow divider for noise reduction (optional)
- Plug with PTFE soft seal (optional)

Figure	Nominal pressure	Material	Nominal diameter	Downstream-pressure ranges	Actuator
12.701	PN16	EN-JL1040	DN15-150	0,2 - 16 barg	DMA400
22.701	PN16	EN-JS1049	DN15-150		DMA250
23.701	PN25	EN-JS1049	DN15-150		DMA160
34.701	PN25	1.0619+N	DN15-150		DMA80
35.701	PN40	1.0619+N	DN15-150		DMA40

Dimensions

DN			15	20	25	32	40	50	65	80	100	125	150
L		(mm)	130	150	160	180	200	230	290	310	350	400	480
H	DMA 400	(mm)	495	490	500	500	540	540	545	585	610	650	690
	DMA 250	(mm)	455	455	460	460	500	500	505	545	585	610	650
	DMA 160	(mm)	440	440	440	440	480	480	490	530	550	590	630
	DMA 80	(mm)	435	435	440	440	480	480	485	530	550	590	630
	DMA 40	(mm)	435	435	440	440	480	480	485	530	550	590	630

Kvs-value

Kvs-value	standard	(m ³ /h)	3,2	5	8	12,5	20	32	50	80	125	190	280
	reduced	(m ³ /h)	0,1 / 0,4 / 1 / 2,5	0,1 / 0,4 / 1 / 2,5 / 4	0,1 / 0,4 / 1 / 2,5 / 4 / 6,3	--	--	--	--	--	--	--	--
Seat- ϕ		(mm)	18	22	25	32	40	50	65	80	100	125	150
Travel		(mm)	4	5	6	8	8	10	11	13	16	19	22
Max. differential pressure drop		(bar)	40	40	25	25	25	25	20	20	20	16	16
Shutt off class		Leakage class I acc. to DIN EN 1349 or DIN EN 60534-4 ($\leq 0,05\%$ from Kvs-value)											

Downstream-pressure ranges

	(barg)	0,2 - 0,6	0,5 - 1,2	0,8 - 2,5	2 - 5	4,5 - 10	8 - 16
Pneumatic Actuator DMA	(cm ²)	DMA 400	DMA 250	DMA 160	DMA 80	DMA 40	
Pneumatic Actuator PN-max.	(barg)	1,6	2,5	6	10	20	
Spring end-No.		04	04	07	07	07	10

Pressure-temperature-ratings

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

acc. to DIN EN 1092-2			-60°C to <-10°C*	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C
EN-JL1040	PN16	(bar)	--	16	14,4	12,8	11,2	9,6	--
EN-JS1049	PN16	(bar)	on request	16	15,5	14,7	13,9	12,8	11,2
EN-JS1049	PN25	(bar)	on request	25	24,3	23	21,8	20	17,5

acc. to manufacturers standard			-60°C to <-10°C*	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C
1.0619+N	PN25	(bar)	18,7	25	23,9	22	20	17,2	16
1.0619+N	PN40	(bar)	30	40	38,1	35	32	28	25,7

*last updated 10/16

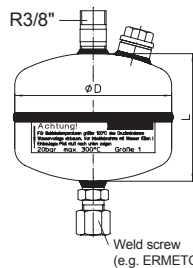
Water seal pot

(for media temperatures higher than the allowed diaphragm temperature)

- Delivered with a funnel

Selection of possible applications:

- Steam
- Hot water
- Neutral liquids



Weld screw
(e.g. ERMETO AS 10 - PL)



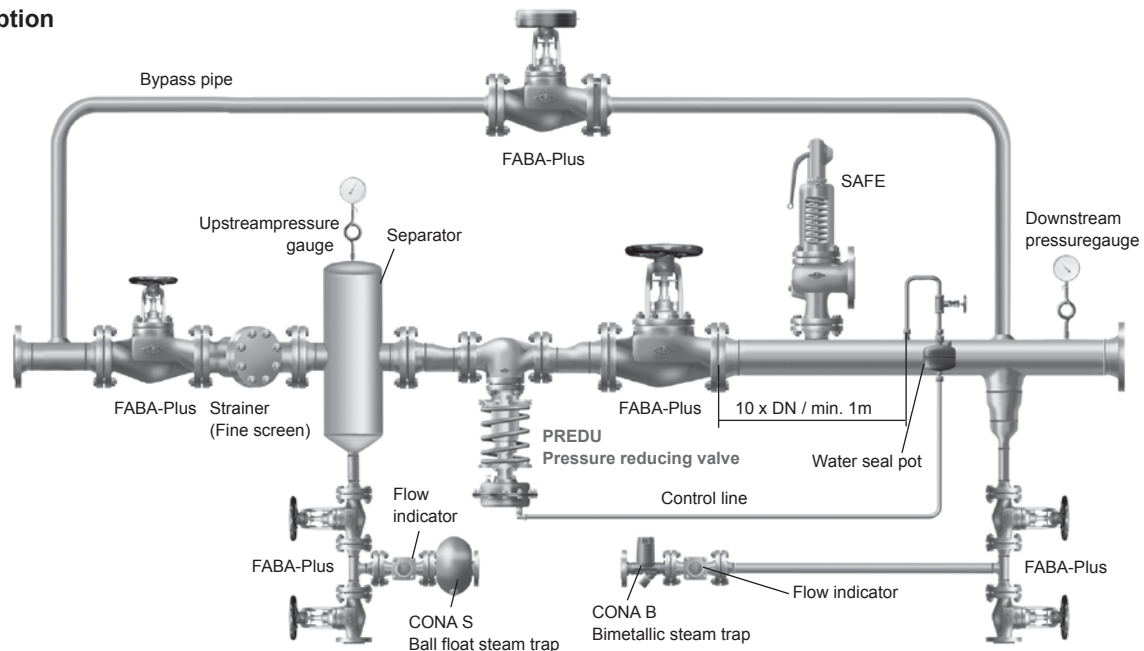
90°-elbow R1/4"
(e.g. ERMETO WE10-LLR)



Flow restrictor
G1/4" / G1/4"

Pneumatic Actuator	DMA 400	DMA 250	DMA 160	DMA 80	DMA 40
Size	2		1		
ØD (mm)	140		102		
L (mm)	110		83		
V (dm ³)	1,2		0,6		

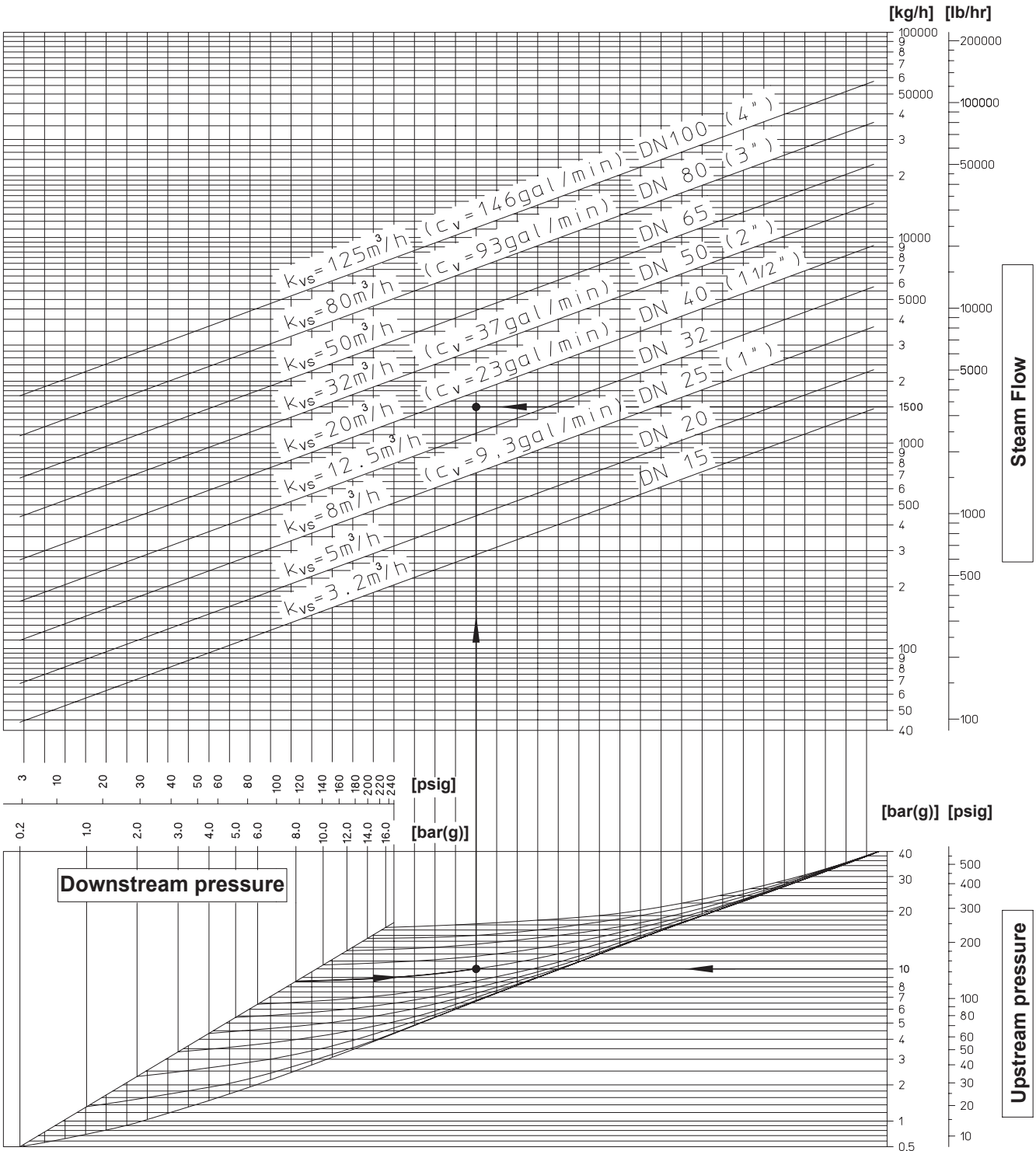
Description



Materials					
Pos.	Ers.	Description	Fig. 12.701	Fig. 22.701 / Fig. 23.701	Fig. 34.701 / Fig. 35.701
1		Body	EN-JL1040, EN-GJL-250	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N
2	x	Screwed seat ring	X20Cr13+QT, 1.4021+QT		
3		Stud	25CrMo4, 1.7218 -A2B		
4	x	Gasket	Pure graphite (CrNi laminated with graphite)		
5		Bush housing	EN-JS1049, EN-GJS-400-18U-LT		
5.1		Guide bush	X20Cr13+QT, 1.4021+QT		
6	x	Gasket	Pure graphite (CrNi laminated with graphite)		
8	x	Balanced-bellow-unit	X6CrNiMoTi17-12-2, 1.4571 / X5CrNi18-10, 1.4301 / X20Cr13+QT, 1.4021+QT		
9	x	Plug unit	X20Cr13+QT, 1.4021+QT (hardened)		
10		Washer	A2		
11		Hexagon screw	< DN40: A4-70		
11		Head	≥ DN40: X6CrNiTi18-10, 1.4541 / X20Cr13+QT, 1.4021+QT		
12		Bonnet Fig. 700 closed	EN-JS1049, EN-GJS-400-18U-LT		
14		Hexagon	C35E, 1.1181 -A2B		
15	x	Gasket	Pure graphite (CrNi laminated with graphite)		
16	x	Sealing-bellow-unit	X6CrNiMoTi17-12-2, 1.4571 / X5CrNi18-10, 1.4301 / X20Cr13+QT, 1.4021+QT		
17		Adjusting plate	EN-JS1049, EN-GJS-400-18U-LT		
18		Head	EN-JS1030, EN-GJS-400-15		
19		Screw joint	11SMn30+C, 1.0715+C		
20		Thread pin	45H - A2B		
21		Guide bush	PTFE-25%C		
22		Guide coupling	X20Cr13+QT, 1.4021+QT		
23		Cylindrical balls	102Cr6, 1.2067		
24		Securing wire	X12CrNi17-7, 1.4310		
25	x	Spring	51CrV4, 1.8159		
26		Spring plate	S235JR, 1.0037		
27		Axial bearing	102Cr6, 1.2067		
28		Pressure plate	11SMn30+C, 1.0715+C		
29		Parallel pin	St		
30		Slotted nut	5.8 - A2B		
31	x	P-Actuator			
31.6	x	Rolling diaphragm	NBR / EPDM		
31.8	x	Collar nut	8-A4G		
L Spare parts					

*last updated 10/16

Sizing Diagram for Saturated Steam

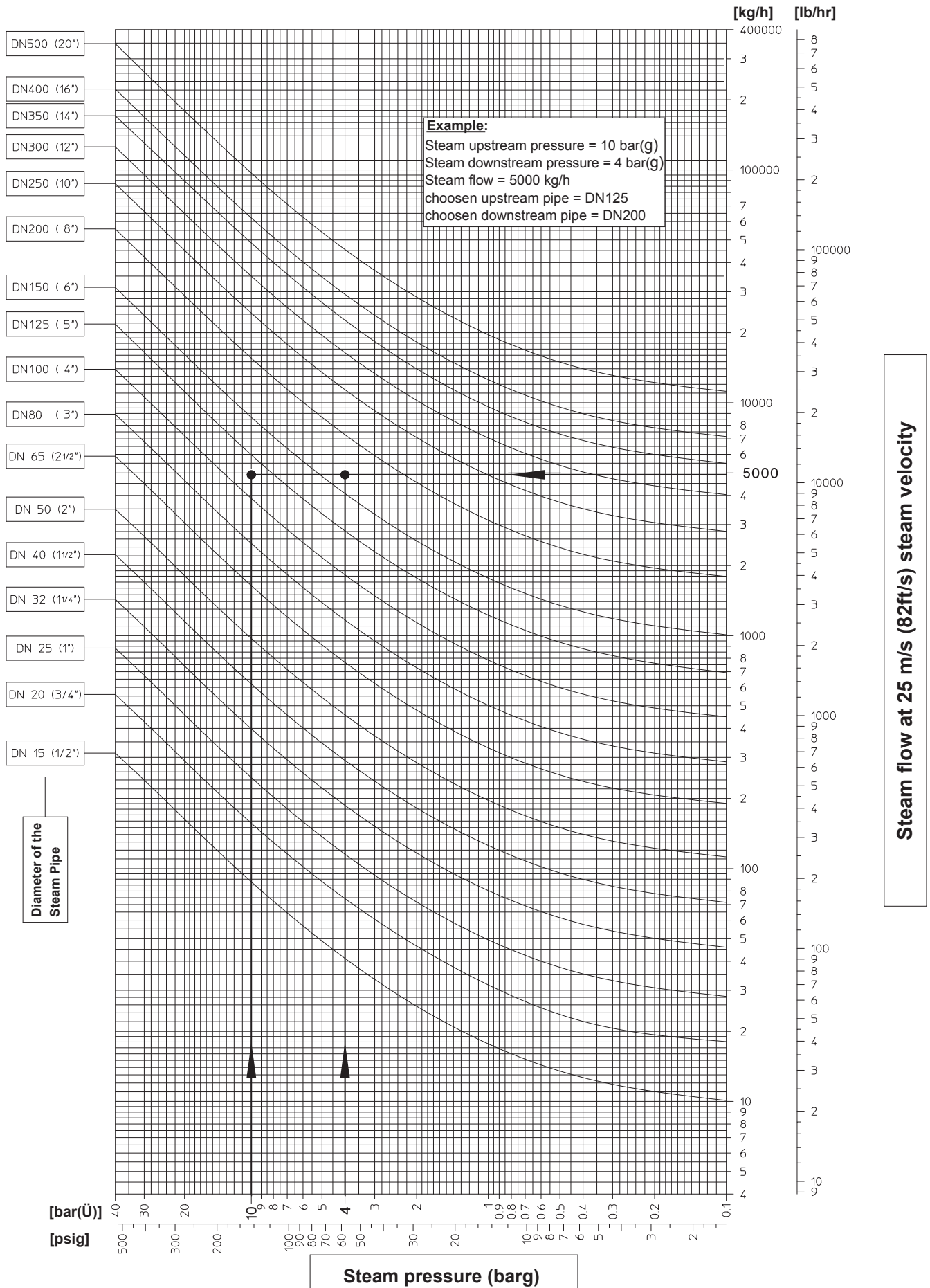


Example

Steam flow = 1200 kg/h
 Upstream pressure = 10 bar / Downstream pressure = 8 bar
 1200 kg/h x Factor 1.25 = 1500 kg/h
 Chosen DN40

*last updated 10/16

Pipe Sizing for Saturated Steam



*last updated 10/16