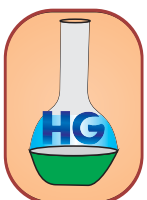


Heta Glass Industries



PIPELINE COMPONENTS



PIPELINE COMPONENTS

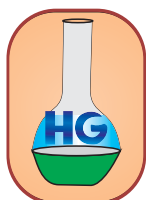
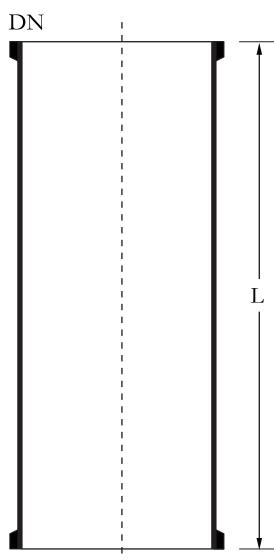
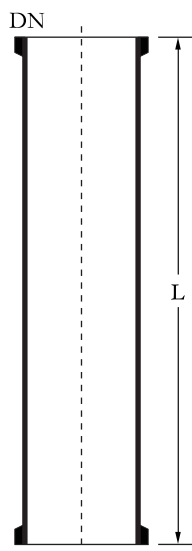
INTRODUCTION

Borosilicate glass 3.3 pipeline components are widely used in chemical, pharmaceutical and allied industries together with other applications such as food and drugs, dye production and electroplating industries. This is because of the special properties of borosilicate glass 3.3.

1. Smooth Surfaces allow easy cleaning and sterilization and prevent the build-up of solids on the inner walls.
2. With almost universal resistance to corrosion, a long service life is guaranteed and maintenance is kept to a minimum.
3. Their transparency permits visual monitoring of the process at all times.
4. Being inert, the risk of contamination is negligible.

All the components are suitable for operation under full vacuum conditions. Non-standard size components can also be supplied on special order.

PIPE SECTION



L	CAT. REF DN 15	CAT. REF DN 25	CAT. REF DN 40	CAT. REF DN 50
75	HPS07/75	-	-	-
100	HPS07/100	HPS1/100	HPS1.5/100	HPS2/100
150	HPS07/150	HPS1/150	HPS1.5/150	HPS2/150
200	HPS07/200	HPS1/200	HPS1.5/200	HPS2/200
250	HPS07/250	HPS1/250	HPS1.5/250	HPS2/250
300	HPS07/300	HPS1/300	HPS1.5/300	HPS2/300
400	HPS07/400	HPS1/400	HPS1.5/400	HPS2/400
500	HPS07/500	HPS1/500	HPS1.5/500	HPS2/500
600	HPS07/600	HPS1/600	HPS1.5/600	HPS2/600
750	HPS07/750	HPS1/750	HPS1.5/750	HPS2/750
900	HPS07/900	HPS1/900	HPS1.5/900	HPS2/900
1000	HPS07/1000	HPS1/1000	HPS1.5/1000	HPS2/1000

L	CAT. REF DN 80	CAT. REF DN 100	CAT. REF DN 150
100	HPS3/100	HPS4/100	HPS6/100
150	HPS3/150	HPS4/150	HPS6/150
200	HPS3/200	HPS4/200	HPS6/200
250	HPS3/250	HPS4/250	HPS6/250
300	HPS3/300	HPS4/300	HPS6/300
400	HPS3/400	HPS4/400	HPS6/400
500	HPS3/500	HPS4/500	HPS6/500
600	HPS3/600	HPS4/600	HPS6/600
750	HPS3/750	HPS4/750	HPS6/750
900	HPS3/900	HPS4/900	HPS6/900
1000	HPS3/1000	HPS4/1000	HPS6/1000

PIPELINE COMPONENTS

L	CAT. REF DN 225	CAT. REF DN 300
300	HPS9/300	HPS12/300
400	HPS9/400	HPS12/400
500	HPS9/500	HPS12/500
600	HPS9/600	HPS12/600
750	HPS9/750	HPS12/750
900	HPS9/900	HPS12/900
1000	HPS9/1000	HPS12/1000
1200	HPS9/1200	HPS12/1200
1500	HPS9/1500	HPS12/1500

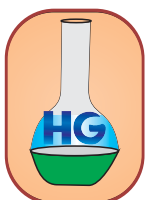
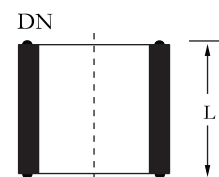
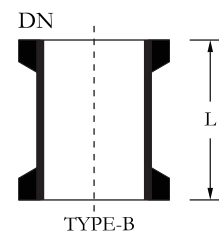
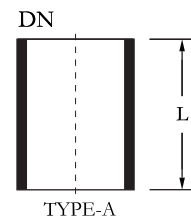
L	CAT. REF DN 400	CAT. REF DN 450	CAT. REF DN 600
300	HPS16/300	HPS18/300	HPS24/300
500	HPS16/500	HPS18/500	HPS24/500
750	HPS16/750	HPS18/750	HPS24/750
1000	HPS16/1000	HPS18/1000	HPS24/1000
1500	HPS16/1500	HPS18/1500	HPS24/1500

SPACER

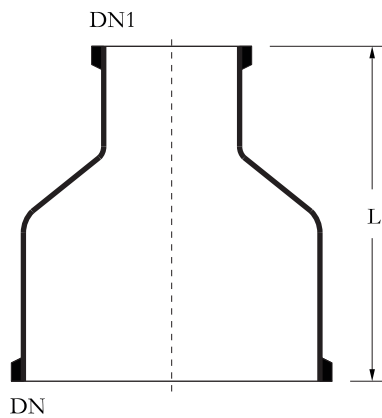
Spacer is used to make small increments in length and is fitted between standard pipe line components . When incorporating the spacer, longer coupling bolts are required with additional gasket.

Spacer are also available in PTFE.

DN	L	TYPE	CAT. REF
15	5	A	HSS07/5
	15	A	HSS07/15
	20	A	HSS07/20
	25	B	HSS07/25
	50	B	HSS07/50
25	5	A	HSS1/5
	15	A	HSS1/15
	20	A	HSS1/20
	25	B	HSS1/25
	50	B	HSS1/50
40	5	A	HSS1.5/5
	15	A	HSS1.5/15
	20	A	HSS1.5/20
	25	B	HSS1.5/25
	50	B	HSS1.5/50
	75	B	HSS1.5/75
50	5	A	HSS2/5
	15	A	HSS2/15
	20	A	HSS2/20
	25	B	HSS2/25
	50	B	HSS2/50
	75	B	HSS2/75
	80	5	A
15		A	HSS3/15
20		A	HSS3/20
25		B	HSS3/25
50		B	HSS3/50
75		B	HSS3/75
100		B	HSS3/100

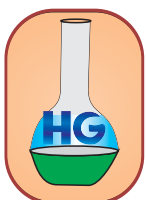


PIPELINE COMPONENTS



CONCENTRIC REDUCER

DN	DN1	L	CAT. REF
25	15	75	HPR1/07
40	15	100	HPR1.5/07
40	25	100	HPR1.5/1
50	15	100	HPR2/07
50	25	100	HPR2/1
50	40	100	HPR2/1.5
80	15	100	HPR3/07
80	25	125	HPR3/1
80	40	125	HPR3/1.5
80	50	125	HPR3/2
100	15	125	HPR4/07
100	25	150	HPR4/1
100	40	150	HPR4/1.5
100	50	150	HPR4/2
100	80	150	HPR4/3
150	25	200	HPR6/1
150	40	200	HPR6/1.5
150	50	200	HPR6/2
150	80	200	HPR6/3
150	100	200	HPR6/4
225	25	250	HPR9/1
225	40	250	HPR9/1.5
225	50	250	HPR9/2
225	80	250	HPR9/3
225	100	250	HPR9/4
225	150	250	HPR9/6
300	25	300	HPR12/1
300	40	300	HPR12/1.5
300	50	300	HPR12/2
300	80	300	HPR12/3
300	100	300	HPR12/4
300	150	300	HPR12/6
300	225	300	HPR12/9
400	25	350	HPR16/1
400	40	350	HPR16/1.5
400	50	350	HPR16/2
400	80	350	HPR16/3
400	100	350	HPR16/4
400	150	350	HPR16/6
400	225	350	HPR16/9
400	300	350	HPR16/12
450	25	350	HPR18/1
450	40	350	HPR18/1.5
450	50	375	HPR18/2
450	80	375	HPR18/3
450	100	375	HPR18/4
450	150	375	HPR18/6
450	225	375	HPR18/9
450	300	375	HPR18/12
600	100	400	HPR24/4
600	150	400	HPR24/6
600	225	425	HPR24/9
600	300	425	HPR24/12
600	450	475	HPR24/18



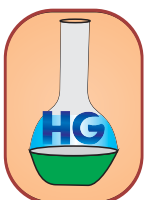
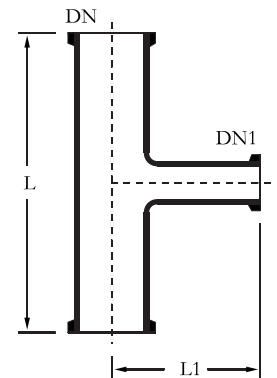
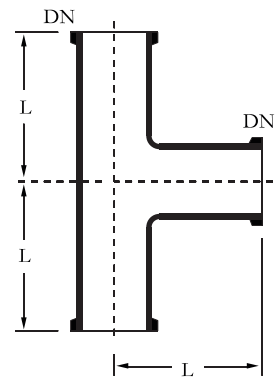
PIPELINE COMPONENTS

EQUAL TEE

DN	L	CAT. REF
15	50	HPT07
25	100	HPT1
40	150	HPT1.5
50	150	HPT2
80	200	HPT3
100	250	HPT4
150	250	HPT6
225	375	HPT9
300	450	HPT12

UNEQUAL TEE

DN	DN1	L	L1	CAT. REF
25	15	150	75	HPTU1/07
40	15	200	75	HPTU1.5/07
40	25	200	75	HPTU1.5/1
50	15	200	80	HPTU2/07
50	25	200	80	HPTU2/1
50	40	200	100	HPTU2/1.5
80	15	250	100	HPTU3/07
80	25	250	100	HPTU3/1
80	40	250	100	HPTU3/1.5
80	50	250	115	HPTU3/2
100	15	250	100	HPTU4/07
100	25	250	110	HPTU4/1
100	40	250	125	HPTU4/1.5
100	50	250	125	HPTU4/2
100	80	300	150	HPTU4/3
150	25	250	150	HPTU6/1
150	40	250	150	HPTU6/1.5
150	50	250	150	HPTU6/2
150	80	300	200	HPTU6/3
150	100	300	200	HPTU6/4
225	25	300	185	HPTU9/1
225	40	300	185	HPTU9/1.5
225	50	300	185	HPTU9/2
225	80	300	210	HPTU9/3
225	100	450	250	HPTU9/4
225	150	450	275	HPTU9/6
300	25	400	230	HPTU12/1
300	40	400	230	HPTU12/1.5
300	50	400	230	HPTU12/2
300	80	400	275	HPTU12/3
300	100	400	275	HPTU12/4
300	150	450	300	HPTU12/6
300	225	600	300	HPTU12/9
400	40	400	275	HPTU16/1.5
400	50	400	275	HPTU16/2
400	80	400	300	HPTU16/3
400	100	400	300	HPTU16/4
400	150	500	350	HPTU16/6
400	225	800	450	HPTU16/9
400	300	800	450	HPTU16/12



PIPELINE COMPONENTS

Unequal Tee (Contd...)

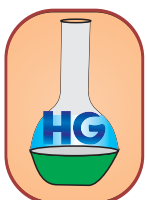
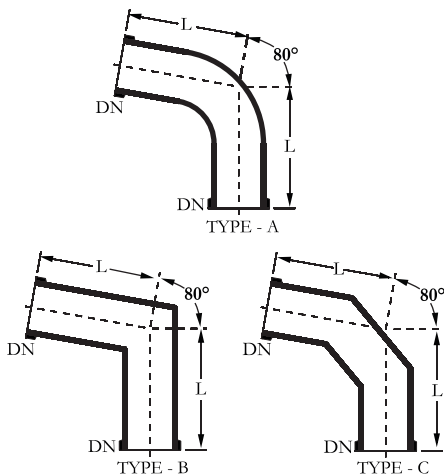
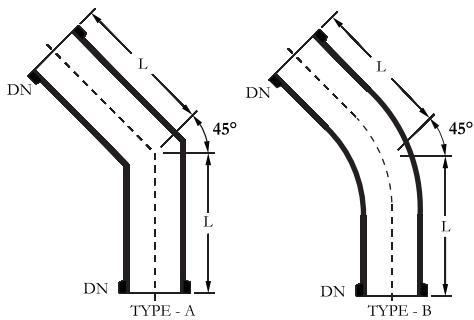
DN	DN1	L	L1	CAT. REF
450	40	400	300	HPTU18/1.5
450	50	400	300	HPTU18/2
450	80	400	320	HPTU18/3
450	100	400	320	HPTU18/4
450	150	600	380	HPTU18/6
450	225	800	400	HPTU18/9
450	300	800	400	HPTU18/12
600	100	600	450	HPTU24/4
600	150	600	450	HPTU24/6
600	225	800	525	HPTU24/9
600	300	800	525	HPTU24/12

BEND 45°

DN	L	TYPE	CAT. REF
15	50	A	HPB07/45°
25	75	A	HPB1/45°
40	100	A	HPB1.5/45°
50	100	A	HPB2/45°
80	125	B	HPB3/45°
100	175	B	HPB4/45°
150	200	B	HPB6/45°
225	225	B	HPB9/45°
300	275	B	HPB12/45°

BEND 80°

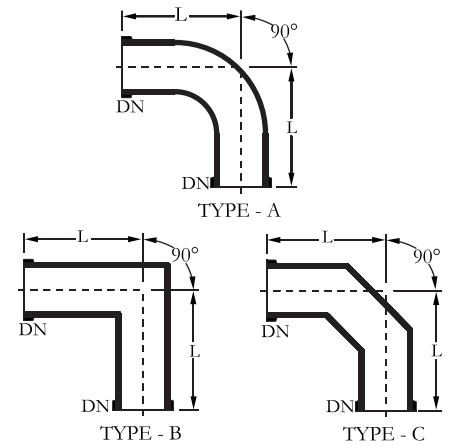
DN	L	TYPE	CAT. REF
15	100	A	HPB07/80°
25	100	A	HPB1/80°
40	150	A	HPB1.5/80°
50	150	A	HPB2/80°
80	200	B/C	HPB3/80°
100	250	B/C	HPB4/80°
150	250	B/C	HPB6/80°
225	375	B/C	HPB9/80°
300	450	B/C	HPB12/80°



PIPELINE COMPONENTS

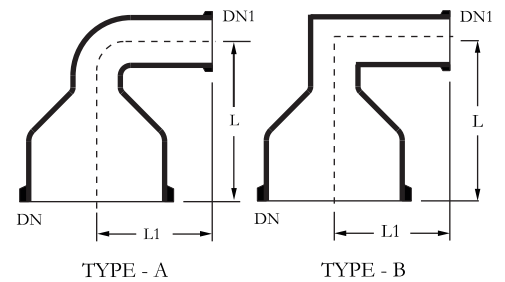
BEND 90°

DN	L	TYPE	CAT. REF
15	100	A	HPB07/90°
25	100	A	HPB1/90°
40	150	A	HPB1.5/90°
50	150	A	HPB2/90°
80	200	B/C	HPB3/90°
100	250	B/C	HPB4/90°
150	250	B/C	HPB6/90°
225	375	B/C	HPB9/90°
300	450	B/C	HPB12/90°



BEND REDUCER 90°

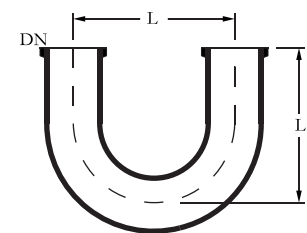
DN	DN1	L	L1	CAT. REF
40	25	150	125	HPBR1.5/1
50	25	150	150	HPBR2/1
50	40	150	150	HPBR2/1.5
80	40	150	150	HPBR3/1.5
80	50	150	150	HPBR3/2
100	25	200	150	HPBR4/1
100	50	200	150	HPBR4/2
100	80	200	175	HPBR4/3
150	50	200	150	HPBR6/2
150	80	250	175	HPBR6/3
225	50	250	200	HPBR9/2
225	80	250	250	HPBR9/3
300	80	300	250	HPBR12/3
300	150	350	250	HPBR12/6



* "HPBR" are also available in 45° & 80°

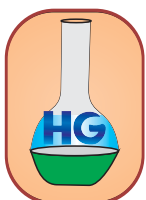
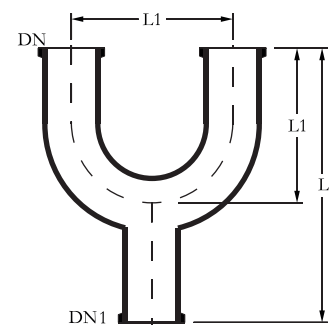
U BEND

DN	L	CAT. REF
15	75	HPU07
25	150	HPU1
40	175	HPU1.5
50	175	HPU2
80	225	HPU3

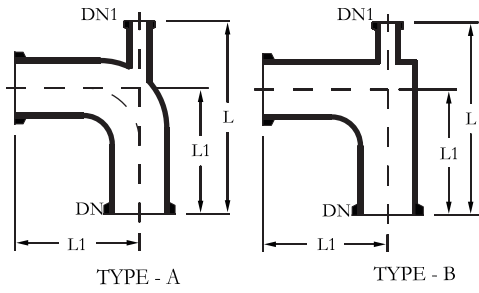


U BEND WITH BOTOM OUTLET

DN	DN1	L	L1	CAT. REF
15	15	125	75	HPUO07
25	25	250	150	HPUO1
40	25	275	175	HPUO1.5/1
40	40	275	175	HPUO1.5
50	25	275	175	HPUO2/1
50	50	275	175	HPUO2
80	25	350	225	HPUO3/1

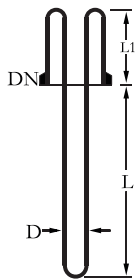


PIPELINE COMPONENTS



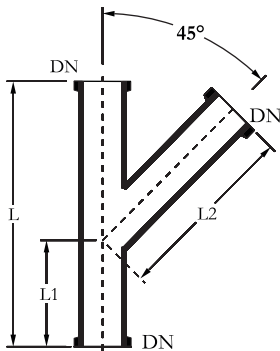
BEND 90° WITH THERMOMETER BRANCH

DN	DN1	L	L1	TYPE	CAT. REF
40	25	225	150	A	HPBT1.5
50	25	225	150	A	HPBT2
80	25	275	200	A	HPBT3
100	25	350	250	B	HPBT4
150	25	350	250	B	HPBT6
225	25	475	375	B	HPBT9
300	25	550	450	B	HPBT12



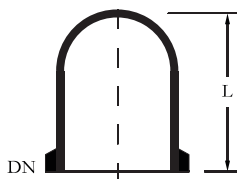
THERMOMETER POCKET FOR 90° BEND

DN	D	L	L1	CAT. REF
25	12	100	50	HTPBT1
25	12	100	50	HTPBT1.5
25	12	100	50	HTPBT2
25	12	100	50	HTPBT3
25	12	110	50	HTPBT4
25	12	135	50	HTPBT6
25	12	160	50	HTPBT9
25	12	200	50	HTPBT12



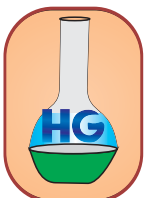
Y PIECE

DN	L	L1	L2	CAT. REF
15	125	50	100	HPY07
25	200	75	150	HPY1
40	250	100	175	HPY1.5
50	300	125	200	HPY2
80	350	150	250	HPY3
100	450	150	350	HPY4



CLOSURE

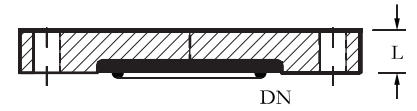
DN	L	CAT. REF
15	40	HPBE07
25	50	HPBE1
40	75	HPBE1.5
50	75	HPBE2
80	100	HPBE3
100	125	HPBE4
150	125	HPBE6
225	150	HPBE9
300	150	HPBE12



PIPELINE COMPONENTS

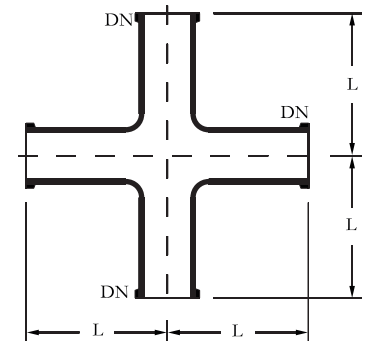
BLIND

DN	L	CAT. REF
15	8	HPBF07
25	8	HPBF1
40	8	HPBF1.5
50	8	HPBF2
80	8	HPBF3
100	8	HPBF4
150	9	HPBF6
225	9	HPBF9
300	9	HPBF12



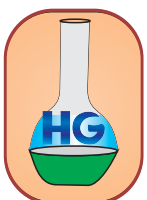
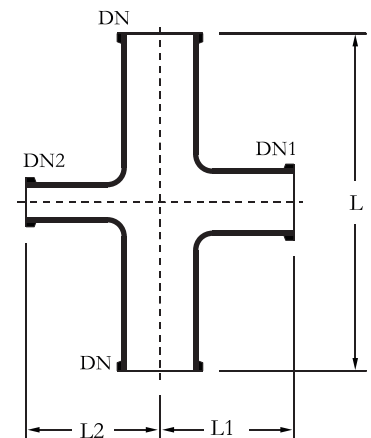
EQUAL CROSS

DN	L	CAT. REF
15	50	HPX07
25	100	HPX1
40	150	HPX1.5
50	150	HPX2
80	200	HPX3
100	250	HPX4
150	250	HPX6



UNEQUAL CROSS

DN	DN1	DN2	L	L1	L2	CAT. REF
50	25	25	200	80	80	HPXU2/1/1
50	40	25	200	100	80	HPXU2/1.5/1
80	25	25	250	100	100	HPXU3/1/1
80	40	25	250	100	100	HPXU3/1.5/1
80	50	25	250	115	100	HPXU3/2/1
100	25	25	250	110	110	HPXU4/1/1
100	40	25	250	125	110	HPXU4/1.5/1
100	50	25	250	125	110	HPXU4/2/1
100	80	25	300	150	150	HPXU4/3/1
150	40	25	250	150	150	HPXU6/1.5/1
150	50	25	250	150	150	HPXU6/2/1
150	80	50	300	175	150	HPXU6/3/2
150	100	50	300	200	150	HPXU6/4/2
225	40	40	300	185	185	HPXU9/1.5/1.5
225	50	40	300	185	185	HPXU9/2/1.5
225	80	40	300	210	185	HPXU9/3/1.5
225	100	50	450	250	185	HPXU9/4/2
225	150	80	450	275	210	HPXU9/6/3



PIPELINE COMPONENTS

Unequal Cross (Contd...)

DN	DN1	DN2	L	L1	L2	CAT. REF
300	50	40	400	230	230	HPXU12/2/1.5
300	80	40	400	275	230	HPXU12/3/1.5
300	100	40	400	275	230	HPXU12/4/1.5
300	150	50	450	300	230	HPXU12/6/2
300	225	80	600	300	275	HPXU12/9/3
400	40	40	400	275	275	HPXU16/1.5/1.5
400	80	40	400	300	275	HPXU16/3/1.5
400	100	40	400	300	275	HPXU16/4/1.5
400	150	80	500	350	300	HPXU16/6/3
400	225	100	800	450	300	HPXU16/9/4
450	40	40	400	300	300	HPXU18/1.5/1.5
450	80	40	400	320	300	HPXU18/3/1.5
450	100	40	400	320	300	HPXU18/4/1.5
450	150	80	600	380	320	HPXU18/6/3
450	225	100	800	400	320	HPXU18/9/4

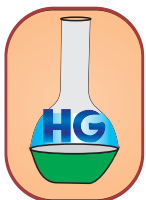
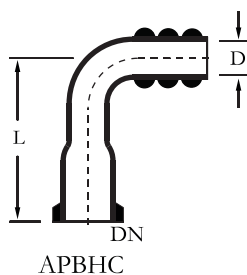
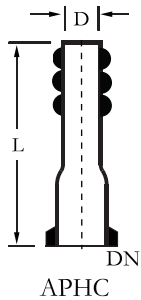
HOSE CONNECTOR

DN	D	L	CAT. REF
15	19	70	HPHC07/75
25	25	90	HPHC1/1
25	19	90	HPHC1/75
25	13	90	HPHC1/.5
25	07	90	HPHC1/.25
40	25	100	HPHC1.5/1
40	19	100	HPHC1.5/75

BEND HOSE CONNECTOR

DN	D	L	CAT. REF
15	19	40	HPBHC7/75
25	25	60	HPBHC1/1
25	19	60	HPBHC1/75
40	19	75	HPBHC1.5/75
50	19	100	HPBHC2/75

*D is the bore of the matching hose .



PIPELINE COMPONENTS

JACKETED PIPE SECTION

For heating of piping and for controlling the temperature throughout the column, the jacketed pipe section is provided. Glass jacket is sealed to the pipe section using silicon 'O' ring and other sealing compositions.

*Permissible pressure in glass jacket

DN 80 - DN 150 1.0 bar. g

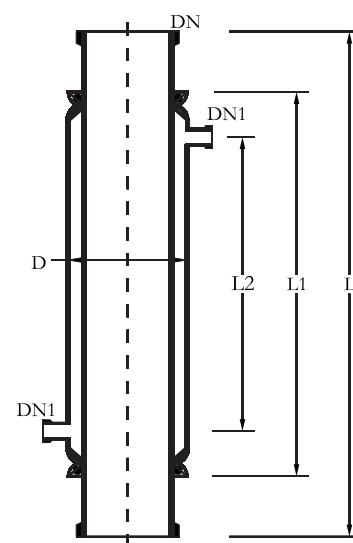
DN 225 - DN 300 0.5 bar. g

DN	D	DN1	L	L1	L2	CAT. REF
80	100	25	1000	850	750	HPSD3/1000
100	150	25	1000	850	750	HPSD4/1000
150	225	25	1000	850	700	HPSD6/1000
225	300	25	1000	850	700	HPSD9/1000
300	400	25	1000	850	650	HPSD12/1000

METAL JACKET

Pipe section can also be provided with metal jacket. In metal jacket, maximum operating pressure permitted is 2.0 bar g in all the sizes. They are used not only to avoid heat loss for the purpose of saving energy but also where product temperature has to be maintained to prevent crystallising or undesirable reactions.

DN	D	DN1	L	L1	L2	CAT. REF
80	100	25	1000	850	750	HPSJ3/1000
100	135	25	1000	850	750	HPSJ4/1000
150	188	25	1000	850	700	HPSJ6/1000
225	262	25	1000	850	700	HPSJ9/1000
300	345	25	1000	850	650	HPSJ12/1000



HG

Honesty

Efficiency

Transparency

Ambitions



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