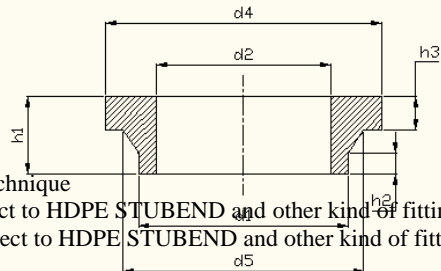


**DIMENSION SPECIFICATION FOR STUB END (FLANGE ADAPTER) DESIGN STRESS 6.3 MPa (PE 80)**

HDPE OD	NS	d <sub>1</sub>	d <sub>5</sub>	d <sub>4</sub>	d <sub>4t</sub>	PN 3.2			PN 4			PN 5			PN 6.3		
						d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>
20	15	20	27	45	±0.5	-	-	-	-	-	-	-	-	-	-	-	-
25	20	25	33	58	±0.5	-	-	-	-	-	-	-	-	-	-	-	-
32	25	32	40	68	±1.0	-	-	-	-	-	-	-	-	27	25	10	
40	32	40	50	78	±1.0	-	-	-	-	-	-	35	25	11	35	25	11
50	40	50	61	88	±1.0	-	-	-	-	-	-	45	30	12	45	30	12
63	50	63	75	100	±1.0	-	-	-	58	35	14	57	35	14	56	35	14
75	65	75	89	120	±1.0	71	35	16	70	35	16	68	35	16	67	35	16
90	80	90	105	130	±1.0	85	40	17	84	40	17	82	40	17	80	40	17
110	100	110	125	155	±2.0	104	45	18	102	45	18	100	45	18	98	45	18
125	100	125	132	155	±2.0	118	45	18	116	45	18	114	45	22	112	45	22
140	125	140	155	186	±2.0	132	60	18	130	60	18	128	60	22	125	60	22
160	150	160	175	212	±2.0	151	65	18	149	65	18	146	65	22	143	65	22
180	150	180	186	212	±2.0	170	65	18	167	65	18	164	65	22	161	65	22
200	200	202	232	266	±2.0	189	75	18	186	75	18	183	75	24	178	75	24
225	200	227	235	266	±2.0	212	75	18	209	75	18	206	75	24	201	75	24
250	250	252	285	320	±2.0	235	90	20	232	90	20	228	90	25	223	90	25
280	250	282	291	320	±2.0	264	90	20	260	90	20	256	90	25	250	90	25
315	300	317	335	370	±3.0	297	95	20	293	95	20	288	95	25	281	95	25
355	350	357	373	418	±3.0	335	95	23	330	95	23	324	95	30	316	95	30
400	400	402	427	482	±3.0	377	95	26	372	95	26	365	95	33	356	95	33
450 <sup>(1)</sup>	450	452	462	535	±3.0	424	120	38	418	120	38	410	120	46	401	120	46
450 <sup>(2)</sup>	500	452	514	585	±3.0	424	120	38	418	120	38	410	120	46	401	120	46
500	500	502	530	585	±3.0	471	120	38	465	120	38	456	120	46	445	120	46
560	550	562	615	640	+3.0	528	120	40	520	120	40	510	120	50	499	120	50
630	600	632	642	685	±3.0	594	120	40	585	120	40	574	120	50	561	120	50
710	700	712	737	800	±3.0	669	120	40	659	120	40	647	120	50	632	120	50
800	800	802	840	905	±3.0	753	120	42	743	120	43	729	120	50	713	120	50
900	900	902	944	1005	±3.0	848	120	50	835	120	46	820	120	50	802	120	50
1000	1000	1003	1047	1110	±3.0	942	120	55	928	120	50	911	120	55	891	120	55
1200	1200	1203	1245	1330	±3.0	1130	130	60	1114	130	50	1094	130	60	-	-	-
1400	1400	1403	1445	1535	+3.0	1318	140	70	1299	140	70	-	-	-	-	-	-
1600	1600	1603	1645	1760	±3.0	1506	170	90	1485	170	90	-	-	-	-	-	-

**REMARK**

- unit : mm
- OD = outside diameter pipe
- NS = outside diameter pipe (steel)
- PN = nominal pressure (bar)
- Minimum h<sub>2</sub> = 20
- h<sub>1</sub>, h<sub>3</sub> is minimum value
- We reserve amendments of measures for improvement and adjust to the level of technique
- HDPE STUBEND (1) can be used with BACKING RING: JIS standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND (2) can be used with BACKING RING: DIN standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND refers to standard DIN 16963

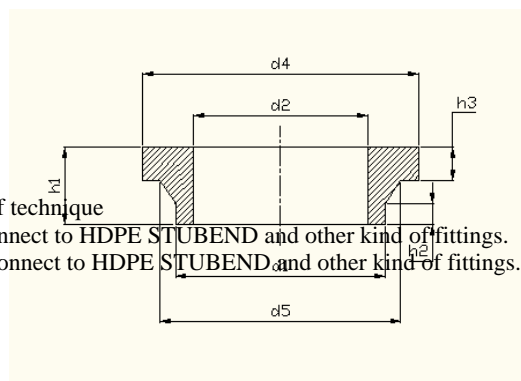


**DIMENSION SPECIFICATION FOR STUB END (FLANGE ADAPTER) DESIGN STRESS 6.3 MPa (PE 80)**

HDPE OD	NS	d <sub>1</sub>	d <sub>5</sub>	d <sub>4</sub>	d <sub>4t</sub>	PN 8			PN 10			PN 12.5			PN 16		
						d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>
20	15	20	27	45	±0.5	-	-	-	15	35	10	15	25	10	15	25	10
25	20	25	33	58	±0.5	20	37	10	20	37	10	20	25	10	19	25	10
32	25	32	40	68	±1.0	27	37	10	27	37	10	26	25	10	24	25	10
40	32	40	50	78	±1.0	35	39	11	33	39	11	32	25	11	30	25	11
50	40	50	61	88	±1.0	43	45	12	42	45	12	40	30	12	38	30	12
63	50	63	75	102	±1.0	55	48	14	53	48	14	50	35	14	48	35	14
75	65	75	89	122	±1.0	65	50	16	63	50	16	60	35	16	57	35	16
90	80	90	105	138	±1.0	78	52	17	75	52	17	72	40	17	68	40	17
110	100	110	125	158	±2.0	95	52	18	92	52	18	88	45	18	83	45	18
125	100	125	132	158	±2.0	109	53	22	105	53	22	100	45	25	94	45	25
140	125	140	155	188	±2.0	122	54	22	117	54	22	112	60	25	106	60	25
160	150	160	175	212	±2.0	139	55	22	134	55	25	128	65	5	120	65	25
180	150	180	186	212	±2.0	156	70	22	151	70	30	143	65	30	135	65	30
200	200	202	232	268	±2.0	174	72	24	168	72	32	159	75	32	150	75	32
225	200	227	235	268	±2.0	195	75	24	188	75	32	179	75	32	169	75	32
250	250	252	285	320	±2.0	217	75	25	209	75	35	199	90	35	188	90	35
280	250	282	291	320	±2.0	242	87	25	234	87	35	223	90	35	210	90	35
315	300	317	335	370	±3.0	273	93	25	263	93	35	251	95	35	236	95	35
355	350	357	373	430	±3.0	307	103	30	296	103	40	283	95	40	266	95	40
400	400	402	427	482	±3.0	346	113	33	334	113	46	319	95	46	300	95	46
450 <sup>(1)</sup>	450	452	462	535	±3.0	389	115	46	375	115	60	358	120	60	338	120	60
450 <sup>(2)</sup>	500	452	514	585	±3.0	389	115	46	375	115	60	358	120	60	338	120	60
500	500	502	530	585	±3.0	433	118	46	417	118	60	398	120	60	375	120	60
560	550	562	615	685	+3.0	485	119	50	467	119	60	446	120	60	420	120	60
630	600	632	642	685	±3.0	545	120	50	526	120	60	502	120	60	-	-	-
710	700	712	737	800	±3.0	614	120	50	592	120	60	-	-	-	-	-	-
800	800	802	840	905	±3.0	692	120	50	667	120	60	-	-	-	-	-	-
900	900	902	944	1005	±3.0	779	120	55	-	-	-	-	-	-	-	-	-
1000	1000	1003	1047	1110	±3.0	865	140	60	-	-	-	-	-	-	-	-	-
1200	1200	1203	1245	1330	±3.0	-	-	-	-	-	-	-	-	-	-	-	-
1400	1400	1403	1445	1535	+3.0	-	-	-	-	-	-	-	-	-	-	-	-
1600	1600	1603	1645	1760	±3.0	-	-	-	-	-	-	-	-	-	-	-	-

**REMARK**

- unit : mm
- OD = outside diameter pipe
- NS = outside diameter pipe (steel)
- PN = nominal pressure (bar)
- Minimum h<sub>2</sub> = 20
- h<sub>1</sub>, h<sub>3</sub> is minimum value
- We reserve amendments of measures for improvement and adjust to the level of technique
- HDPE STUBEND (1) can be used with BACKING RING: JIS standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND (2) can be used with BACKING RING: DIN standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND refers to standard DIN 16963

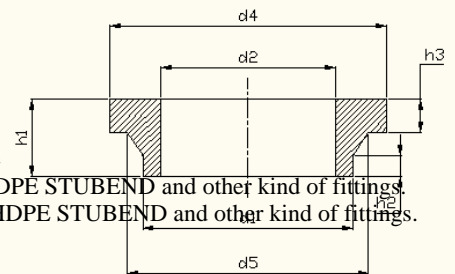


**Dimension Specification for Stub End (Flange Adaptor) design Stress 8.0 MPa (PE 100)**

HDPE OD	NS	d <sub>1</sub>	d <sub>5</sub>	d <sub>4</sub>	d <sub>4t</sub>	PN 4			PN 5			PN 6.3			PN 8		
						d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>
20	15	20	27	45	±0.5	-	-	-	-	-	-	-	-	-	-	-	-
25	20	25	33	58	±0.5	-	-	-	-	-	-	-	-	-	-	-	-
32	25	32	40	68	±1.0	-	-	-	-	-	-	-	-	-	-	-	-
40	32	40	50	78	±1.0	-	-	-	-	-	-	35	25	11	35	25	11
50	40	50	61	88	±1.0	-	-	-	-	-	-	45	30	12	45	30	12
63	50	63	75	100	±1.0	-	-	-	58	35	14	57	35	14	56	35	14
75	65	75	89	120	±1.0	71	35	16	70	35	16	68	35	16	67	35	16
90	80	90	105	130	±1.0	85	40	17	84	40	17	82	40	17	80	40	17
110	100	110	125	155	±2.0	104	45	18	102	45	18	100	45	18	98	45	18
125	100	125	132	155	±2.0	118	45	18	116	45	18	114	45	18	112	45	22
140	125	140	155	186	±2.0	132	60	18	130	60	18	128	60	18	125	60	22
160	150	160	175	212	±2.0	151	65	18	149	65	18	146	65	18	143	65	22
180	150	180	186	212	±2.0	170	65	18	167	65	18	164	65	18	161	65	22
200	200	202	232	266	±2.0	189	75	18	186	75	18	183	75	18	178	75	24
225	200	227	235	266	±2.0	212	75	18	209	75	18	206	75	18	201	75	24
250	250	252	285	320	±2.0	235	90	20	232	90	20	228	90	20	223	90	25
280	250	282	291	320	±2.0	264	90	20	260	90	20	256	90	20	250	90	25
315	300	317	335	370	±3.0	297	95	20	293	95	20	288	95	20	281	95	25
355	350	357	373	418	±3.0	335	95	23	330	95	23	324	95	23	316	95	30
400	400	402	427	482	±3.0	377	95	26	372	95	26	365	95	26	356	95	33
450 <sup>(1)</sup>	450	452	462	535	±3.0	424	120	38	418	120	38	410	120	38	401	120	46
450 <sup>(2)</sup>	500	452	514	585	±3.0	424	120	38	418	120	38	410	120	38	401	120	46
500	500	502	530	585	±3.0	471	120	38	465	120	38	456	120	38	445	120	46
560	600	562	615	640	+3.0	528	120	40	520	120	40	510	120	40	499	120	50
630	600	632	642	685	±3.0	594	120	40	585	120	40	574	120	40	561	120	50
710	700	712	737	800	±3.0	669	120	40	659	120	40	647	120	40	632	120	50
800	800	802	840	905	±3.0	753	120	42	743	120	42	729	120	42	713	120	50
900	900	902	944	1005	±3.0	848	120	50	835	120	46	820	120	50	802	120	50
1000	1000	1003	1047	1110	±3.0	942	120	55	928	120	50	911	120	55	-	-	-
1200	1200	1203	1245	1330	±3.0	1130	130	60	1114	130	50	1094	130	60	-	-	-
1400	1400	1403	1445	1535	+3.0	1318	140	70	1299	140	70	1276	140	70	-	-	-
1600	1600	1603	1603	1760	±3.0	1506	170	90	1485	170	90	1458	170	90	-	-	-

**REMARK**

- unit : mm
- OD = outside diameter pipe
- NS = outside diameter pipe (steel)
- PN = nominal pressure (bar)
- Minimum h<sub>2</sub> = 20
- h<sub>1</sub>, h<sub>3</sub> is minimum value
- We reserve amendments of measures for improvement and adjust to the level of technique
- HDPE STUBEND (1) can be used with BACKING RING: JIS standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND (2) can be used with BACKING RING: DIN standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND refers to standard DIN 16963



**DIMENSION SPECIFICATION FOR STUB END (FLANGE ADAPTER) DESIGN STRESS 8.0 MPa (PE 100)**

HDPE OD	NS	d <sub>1</sub>	d <sub>5</sub>	d <sub>4</sub>	d <sub>4t</sub>	PN 10			PN 12.5			PN 16		
						d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>3</sub>
20	15	20	27	45	±0.5	-	-	-	15	25	10	15	25	10
25	20	25	33	58	±0.5	20	25	10	20	25	10	20	25	10
32	25	32	40	68	±1.0	27	25	10	27	25	10	26	25	10
40	32	40	50	78	±1.0	35	25	11	33	25	11	32	25	11
50	40	50	61	88	±1.0	43	30	12	42	30	12	40	30	12
63	50	63	75	100	±1.0	55	35	14	53	35	14	50	35	14
75	65	75	89	120	±1.0	65	35	16	63	35	16	60	35	16
90	80	90	105	130	±1.0	78	40	17	75	40	17	72	40	17
110	100	110	125	155	±2.0	95	45	18	92	45	18	88	45	18
125	100	125	132	155	±2.0	109	45	22	105	45	22	100	45	25
140	125	140	155	186	±2.0	122	60	22	117	60	22	112	60	25
160	150	160	175	212	±2.0	139	65	22	134	65	25	128	65	25
180	150	180	186	212	±2.0	156	65	22	151	65	30	143	65	30
200	200	202	232	266	±2.0	174	75	24	168	75	32	159	75	32
225	200	227	235	266	±2.0	195	75	24	188	75	32	179	75	32
250	250	252	285	320	±2.0	217	90	25	209	90	35	199	90	35
280	250	282	291	320	±2.0	242	90	25	234	90	35	223	90	35
315	300	317	335	370	±3.0	273	95	25	263	95	35	251	95	35
355	350	357	373	418	±3.0	307	95	30	296	95	40	283	95	40
400	400	402	427	482	±3.0	346	95	33	334	95	46	319	95	46
450 <sup>(1)</sup>	450	452	462	535	±3.0	389	120	46	375	120	60	358	120	60
450 <sup>(2)</sup>	500	452	514	585	±3.0	389	120	46	375	120	60	358	120	60
500	500	502	530	585	±3.0	433	120	46	417	120	60	398	120	60
560	550	562	615	640	+3.0	485	120	50	467	120	60	446	120	60
630	600	632	642	685	±3.0	545	120	50	526	120	60	-	-	-
710	700	712	737	800	±3.0	614	120	50	592	120	60	-	-	-
800	800	802	840	905	±3.0	692	120	50	667	120	60	-	-	-
900	900	902	944	1005	±3.0	779	120	50	-	-	-	-	-	-
1000	1000	1003	1047	1110	±3.0	865	120	55	-	-	-	-	-	-
1200	1200	1203	1245	1330	±3.0	-	-	-	-	-	-	-	-	-
1400	1400	1403	1445	1535	+3.0	-	-	-	-	-	-	-	-	-
1600	1600	1603	1645	1760	±3.0	-	-	-	-	-	-	-	-	-

**REMARK**

- unit : mm
- OD = outside diameter pipe
- NS = outside diameter pipe (steel)
- PN = nominal pressure (bar)
- Minimum h<sub>2</sub> = 20
- h<sub>1</sub>, h<sub>3</sub> is minimum value
- We reserve amendments of measures for improvement and adjust to the level of technique
- HDPE STUBEND (1) can be used with BACKING RING: JIS standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND (2) can be used with BACKING RING: DIN standard and connect to HDPE STUBEND and other kind of fittings.
- HDPE STUBEND refers to standard DIN 16963

