

*Transformed*

**ISO**

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

**ISO RECOMMENDATION  
R 2084**

PIPELINE FLANGES FOR GENERAL USE

**MATING DIMENSIONS**

1st EDITION

October 1971

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## BRIEF HISTORY

The ISO Recommendation R 2084, *Pipeline flanges for general use – Mating dimensions*, was drawn up by Technical Committee ISO/TC 5, *Metal pipes and fittings*, the Secretariat of which is held by the Association Suisse de Normalisation (SNV).

Work on this question led to the adoption of Draft ISO Recommendation No. 2084, which was circulated to all the ISO Member Bodies for enquiry in September 1970. It was adopted, subject to a few modifications of an editorial nature, by the following Member Bodies :

Canada	Israel	Sweden
Chile	Italy	Switzerland
Denmark	Japan	Thailand
Finland	Netherlands	Turkey
France	New Zealand	U.A.R.
Germany	Norway	United Kingdom
Greece	Poland	U.S.S.R.
Hungary	Romania	
India	South Africa, Rep. of	

The following Member Body opposed the approval of the Draft :

Belgium

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

## PIPELINE FLANGES FOR GENERAL USE

### MATING DIMENSIONS

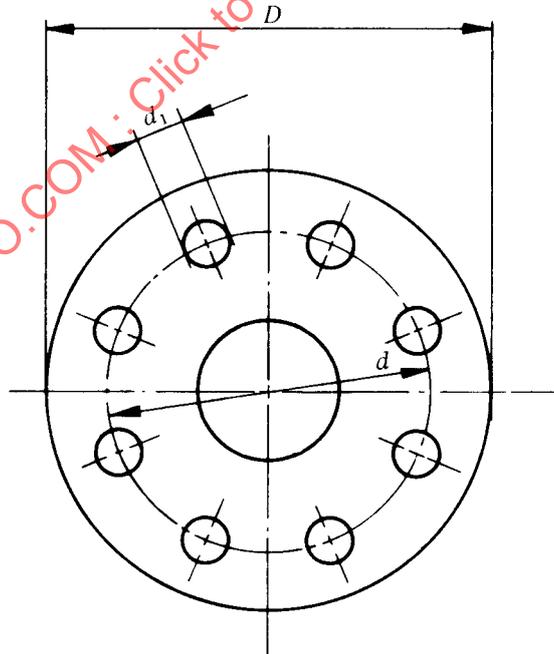
#### 1. SCOPE

This ISO Recommendation tabulates the mating dimensions of all kinds of pipeline flanges for general use.

The same mating dimensions are only indicated once.

There is no nominal diameter in brackets, so that every country can choose nominal diameters suitable for its own usage.

#### 2. SYMBOLS



- DN = nominal diameter of pipeline
- $D$  = outside diameter of flange
- $d$  = pitch circle diameter of bolts
- $d_1$  = bolt hole diameter (according to ISO Recommendation R 273, medium series)
- Th. = thread of bolts
- $n$  = number of bolts
- PN = nominal pressure in bars

3. DIMENSIONS

TABLE 1 - Dimensions for PN ≤ 2.5, PN 6 and PN 10

Dimensions in millimetres

Nominal diameter DN	PN ≤ 2.5					PN 6					PN 10				
	D	d	d <sub>1</sub>	Th.	n	D	d	d <sub>1</sub>	Th.	n	D	d	d <sub>1</sub>	Th.	n
6						65	40	11	M10	4					
8						70	45	11	M10	4					
10						75	50	11	M10	4					
15						80	55	11	M10	4					
20						90	65	11	M10	4					
25						100	75	11	M10	4					
32						120	90	14	M12	4					
40						130	100	14	M12	4					
50						140	110	14	M12	4					
65						160	130	14	M12	4					
80						190	150	18	M16	4					
100						210	170	18	M16	4					
125						240	200	18	M16	8					
150						265	225	18	M16	8					
175						295	255	18	M16	8					
200						320	280	18	M16	8					
225						345	305	18	M16	8					
250						375	335	18	M16	12					
300						440	395	22	M20	12					
350						490	445	22	M20	12					
400						540	495	22	M20	16					
450						595	550	22	M20	16					
500						645	600	22	M20	20					
550						705	655	26	M24	20					
600						755	705	26	M24	20					
650						810	760	26	M24	20					
700						860	810	26	M24	24					
750						920	865	30	M27	24					
800						975	920	30	M27	24					
900						1075	1020	30	M27	24					
1000						1175	1120	30	M27	28					
1100	1275	1220	30	M27	28	1305	1240	33	M30	28	1340	1270	36	M33	32
1200	1375	1320	30	M27	32	1405	1340	33	M30	32	1455	1380	39	M36	32
1300	1475	1420	30	M27	32	1520	1450	36	M33	32	1575	1490	42	M39	32
1400	1575	1520	30	M27	36	1630	1560	36	M33	36	1675	1590	42	M39	36
1500	1690	1630	30	M27	36	1730	1660	36	M33	36	1785	1700	42	M39	36
1600	1790	1730	30	M27	40	1830	1760	36	M33	40	1915	1820	48	M45	40
1800	1990	1930	30	M27	44	2045	1970	39	M36	44	2115	2020	48	M45	44
2000	2190	2130	30	M27	48	2265	2180	42	M39	48	2325	2230	48	M45	48
2200	2405	2340	33	M30	52	2475	2390	42	M39	52	2550	2440	56	M52	52
2400	2605	2540	33	M30	56	2685	2600	42	M39	56	2760	2650	56	M52	56
2600	2805	2740	33	M30	60	2905	2810	48	M45	60	2960	2850	56	M52	60
2800	3030	2960	36	M33	64	3115	3020	48	M45	64	3180	3070	56	M52	64
3000	3230	3160	36	M33	68	3315	3220	48	M45	68	3405	3290	62	M56	68
3200	3430	3360	36	M33	72	3525	3430	48	M45	72					
3400	3630	3560	36	M33	76	3735	3640	48	M45	76					
3600	3840	3770	36	M33	80	3970	3860	56	M52	80					
3800	4045	3970	39	M36	80										
4000	4245	4170	39	M36	84										

TABLE 2 - Dimensions for PN 16, PN 25 and PN 40

Dimensions in millimetres

Nominal diameter DN	PN 16					PN 25					PN 40														
	D	d	d <sub>1</sub>	Th.	n	D	d	d <sub>1</sub>	Th.	n	D	d	d <sub>1</sub>	Th.	n										
6	See PN 40					See PN 40					75	50	11	M10	4										
8											80	55	11	M10	4										
10											90	60	14	M12	4										
15											95	65	14	M12	4										
20											105	75	14	M12	4										
25											115	85	14	M12	4										
32											See PN 40					See PN 40					140	100	18	M16	4
40																					150	110	18	M16	4
50																					165	125	18	M16	4
65																					185	145	18	M16	8
80	See PN 40					200	160	18	M16	8															
100	220	180	18	M16	8	235	190	22	M20	8															
125	250	210	18	M16	8	270	220	26	M24	8															
150	285	240	22	M20	8	300	250	26	M24	8															
175	315	270	22	M20	8	330	280	26	M24	12															
200	340	295	22	M20	12	360	310	26	M24	12															
225	370	325	22	M20	12	395	340	30	M27	12															
250	405	355	26	M24	12	425	370	30	M27	12															
300	460	410	26	M24	12	485	430	30	M27	16															
350	520	470	26	M24	16	555	490	33	M30	16															
400	580	525	30	M27	16	620	550	36	M33	16															
450	640	585	30	M27	20	670	600	36	M33	20															
500	715	650	33	M30	20	730	660	36	M33	20															
550	775	710	33	M30	20	785	710	39	M36	20															
600	840	770	36	M33	20	845	770	39	M36	20															
650	860	790	36	M33	24	895	820	39	M36	24															
700	910	840	36	M33	24	960	875	42	M39	24															
750	970	900	36	M33	24	1020	935	42	M39	24															
800	1025	950	39	M36	24	1085	990	48	M45	24															
900	1125	1050	39	M36	28	1185	1090	48	M45	28															
1000	1255	1170	42	M39	28	1320	1210	56	M52	28															
1100	1355	1270	42	M39	32	1420	1310	56	M52	32															
1200	1485	1390	48	M45	32	1530	1420	56	M52	32															
1300	1585	1490	48	M45	32	1645	1530	62	M56	32															
1400	1685	1590	48	M45	36	1755	1640	62	M56	36															
1500	1820	1710	56	M52	36	1865	1750	62	M56	36															
1600	1930	1820	56	M52	40	1975	1860	62	M56	40															
1800	2130	2020	56	M52	44	2195	2070	70	M64	44															
2000	2345	2230	62	M56	48	2425	2300	70	M64	48															
2200	2555	2440	62	M56	52																				
2400	2765	2650	62	M56	56																				
2600	2965	2850	62	M56	60																				

