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INTERNATIONAL STANDARD



ISO 3663

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## Polyethylene (PE) pressure pipes and fittings, metric series — Dimensions of flanges

*Tubes et raccords sous pression en polyéthylène (PE), série métrique — Dimensions de raccordement des brides*

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## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3663 was drawn up by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, and was circulated to the Member Bodies in April 1975.

It has been approved by the Member Bodies of the following countries :

Austria	Ireland	Spain
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The Member Body of the following country expressed disapproval of the document on technical grounds :

Canada

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# Polyethylene (PE) pressure pipes and fittings, metric series — Dimensions of flanges

## 1 SCOPE

This International Standard specifies the principal dimensions of loose backing flanges for butt or socket fusion-welded flange adaptors<sup>1)</sup> and clamping flange with insert ring for polyethylene (PE), metric series, pressure pipes and fittings.

## 2 FIELD OF APPLICATION

This International Standard applies to flanges for poly-

ethylene (PE) pipe sizes from 16 to 315 mm outside diameter and for nominal pressures (PN) up to 1 MPa (10 bar).

## 3 REFERENCES

ISO 161/1, *Thermoplastics pipes for the transport of fluids — Nominal outside diameters and nominal pressures — Part 1: Metric series.*

ISO/R 273, *Clearance holes for metric bolts.*

ISO 2084, *Pipeline flanges for general use — Metric series — Mating dimensions.*

<sup>1)</sup> The bore dimensions of the loose backing flanges and of the butt or socket fusion-welded flange adaptors will form the subject of a future International Standard.

4 MATING DIMENSIONS

The principal dimensions and symbols are given in the table.

The figures illustrating this International Standard have been arbitrarily chosen without prejudice to the design of the flanges.

Dimensions in millimetres

Dimensions of flange <sup>1)</sup>						Nominal outside diameter of polyethylene pipe ( $d_e$ )		
<p>SYMBOLS</p> <p>DN = nominal diameter of pipeline</p> <p><math>D</math> = outside diameter of flange</p> <p><math>d</math> = pitch circle diameter of bolts</p> <p><math>d_1</math> = bolt hole diameter</p> <p>Th. = thread of bolts</p> <p><math>n</math> = number of bolts</p> <p><math>s</math> = depends on the material</p>								
$D$	$d^{1)}$	$d_{1,2)}$	$n$	Screw thread of bolt Th.	DN <sup>3)</sup>	$d_e^{4)}$		
90	60	14	4	M 12	10	16	16	16
95	65	14	4	M 12	15	20	20	20
105	75	14	4	M 12	20	25	25	25
115	85	14	4	M 12	25	32	32	32
140	100	18	4	M 16	32	40	40	40
150	110	18	4	M 16	40	50	50	50
165	125	18	4	M 16	50	63	63	63
185	145	18	4	M 16	65	75	75	—
200	160	18	(4) 8	M 16	80	90	90	75/90
220	180	18	8	M 16	100	110/125	110	110/125
250	210	18	8	M 16	125	—	125	—
250	210	18	8	M 16	125	140	140	—
285	240	22	8	M 20	150	160/180	160	140/160
315	270	22	8	M 20	175	—	—	—
340	295	22	8	M 20	200	200/225	—	180/200
370	325	22	8	M 20	225	—	—	—
395	350	22	12	M 20	250	250/280	—	225/250
445	400	22	12	M 20	300	315	—	280/315

1) In accordance with ISO 2084.

2) In accordance with ISO/R 273.

3) DN refers to the nominal diameter of pipes given in ISO 2084.

4) In accordance with ISO 161/I.