**МЕЖГОСУДАРСТВЕННЫЙ СОВЕТ ПО СТАНДАРТИЗАЦИИ, МЕТРОЛОГИИ И СЕРТИФИКАЦИИ (МГС)**

**INTERSTATE COUNCIL FOR STANDARDIZATION, METROLOGY AND CERTIFICATION (ISC)**

* **Е Ж Г О С У Д А Р С Т В Е Н Н Ы Й**
  + **Т А Н Д А Р Т**

**ГОСТ**

**33259—**

**2015**

**ФЛАНЦЫ АРМАТУРЫ, СОЕДИНИТЕЛЬНЫХ ЧАСТЕЙ И ТРУБОПРОВОДОВ НА НОМИНАЛЬНОЕ ДАВЛЕНИЕ ДО *PN* 250**

**Конструкция, размеры и общие технические требования**

**(ISO 7005-1:2011, NEQ)**

**(ISO 7005-2:1988, NEQ)**

**Издание официальное**



**ГОСТ 33259—2015**

**Предисловие**

Цели, основные принципы и основной порядок проведения работ по межгосударственной стан-дартизации установлены в ГОСТ 1.0—92 «Межгосударственная система стандартизации. Основные положения» и ГОСТ 1.2—2009 «Межгосударственная система стандартизации. Стандарты межгосудар-ственные, правила и рекомендации по межгосударственной стандартизации. Правила разработки, при-нятия, применения, обновления и отмены»

**Сведения о стандарте**

1 ПОДГОТОВЛЕН Закрытым акционерным обществом «Научно-производственная фирма «Цен-тральное конструкторское бюро арматуростроения» (ЗАО «НПФ «ЦКБА»)

2 ВНЕСЕН Межгосударственным техническим комитетом по стандартизации МТК 259 «Трубопро-водная арматура и сильфоны»

3 ПРИНЯТ Межгосударственным советом по стандартизации, метрологии и сертификации (про-токол от 27 марта 2015 г. № 76-П)

За принятие проголосовали:

|  |  |  |
| --- | --- | --- |
| Краткое наименование страны | Код страны | Сокращенное наименование национального органа |
| по МК (ИСО 3166) 004—97 | по МК (ИСО 3166) 004—97 | по стандартизации |
|  |  |  |
|  |  |  |
| Армения | AM | Минэкономики Республики Армения |
| Беларусь | BY | Госстандарт Республики Беларусь |
| Киргизия | KG | Кыргызстандарт |
| Россия | RU | Росстандарт |
| Украина | UA | Минэкономразвития Украины |
|  |  |  |

4 Приказом Федерального агентства по техническому регулированию и метрологии от 26 мая

2015 г. № 443-ст межгосударственный стандарт ГОСТ 33259—2015 введен в действие в качестве на-ционального стандарта Российской Федерации с 1 апреля 2016 г.

5 В настоящем стандарте учтены основные нормативные положения следующих международных стандартов:

- ISO 7005-1:2011 «Фланцы трубопроводов. Часть 1. Стальные фланцы для промышленных тру-бопроводов и систем трубопроводов многоцелевого назначения» («Pipe flanges — Part 1: Steel flanges for industrial and general service piping systems», NEQ)

- ISO 7005-2:1988 «Фланцы металлические. Часть 2. Фланцы из литейного чугуна» («Metallic flanges — Part 2: Cast iron flanges», NEQ)

6 Подготовлен на основе применения ГОСТ Р 54432—2011\*.

7 ВЗАМЕН ГОСТ 12815—80, ГОСТ 12816—80, ГОСТ 12817—80, ГОСТ 12818—80, ГОСТ 12819—80, ГОСТ 12820—80, ГОСТ 12821—80, ГОСТ 12822—80.

*Информация об изменениях к настоящему стандарту публикуется в ежегодном информаци-онном указателе «Национальные стандарты», а текст изменений и поправок — в ежемесячном информационном указателе «Национальные стандарты». В случае пересмотра (замены) или от-мены настоящего стандарта соответствующее уведомление будет опубликовано в ежемесячном информационном указателе «Национальные стандарты». Соответствующая информация, уведом-ление и тексты размещаются также в информационной системе общего пользования — на офи-циальном сайте Федерального агентства по техническому регулированию и метрологии в сети Интернет*

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* Приказом Федерального агентства по техническому регулированию и метрологии от 26 мая 2015 г. ГОСТ Р

54432—2011 отменен с 1 апреля 2017 г.

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* Российской Федерации настоящий стандарт не может быть полностью или частично воспроиз-веден, тиражирован и распространен в качестве официального издания без разрешения Федерального агентства по техническому регулированию и метрологии

**ГОСТ 33259—2015**

**М Е Ж Г О С У Д А Р С Т В Е Н Н Ы Й** **С Т А Н Д А Р** **Т**

**ФЛАНЦЫ АРМАТУРЫ, СОЕДИНИТЕЛЬНЫХ ЧАСТЕЙ И ТРУБОПРОВОДОВ**

**НА НОМИНАЛЬНОЕ ДАВЛЕНИЕ ДО *PN* 250**

**Конструкция, размеры и общие технические требования**

Flanges for valves, fittings and pipelines for pressure to *PN* 250.

Design, dimensions and general technical requirements

**Дата введения — 2016—04—01**

**1 Область применения**

Настоящий стандарт распространяется на присоединительные фланцы трубопроводной арма-туры (далее — арматуры), соединительных частей и трубопроводов, а также на присоединительные фланцы машин, оборудования, приборов, патрубков, аппаратов и резервуаров на номинальное дав-ление до *PN* 250 и устанавливает конструкцию и размеры стальных и чугунных фланцев, определяет типы фланцев, типы форм уплотнительных поверхностей, устанавливает технические требования к изготовлению, маркировке, испытаниям и контролю.

* настоящем стандарте приведены рекомендации по выбору материала для фланцев и крепеж-ных деталей фланцевых соединений а также по выбору уплотнительной поверхности в зависимости от опасности и параметров рабочей среды.

На фланцы для других объектов, параметров и условий применения действуют ГОСТ 1536,

ГОСТ 4433, ГОСТ 9399, ГОСТ 25660, ГОСТ 28759.1 — ГОСТ 28759.5, [1].

**2 Нормативные ссылки**

* + настоящем стандарте использованы нормативные ссылки на следующие межгосударственные стандарты:

ГОСТ 2.301—68 Единая система конструкторской документации. Форматы

ГОСТ 9.014—78 Единая система защиты от коррозии и старения. Временная противокоррозион-ная защита изделий. Общие требования

ГОСТ 9.303—84 Единая система защиты от коррозии и старения. Покрытия металлические и не-металлические неорганические. Общие требования к выбору

ГОСТ 12.1.007—76 Система стандартов безопасности труда. Вредные вещества. Классификация

* общие требования безопасности

ГОСТ 12.1.044—89 Система стандартов безопасности труда. Пожаровзрывоопасность веществ и материалов. Номенклатура показателей и методы их определения

ГОСТ 356—80 Арматура и детали трубопроводов. Давления номинальные, пробные и рабочие.

Ряды

ГОСТ 977—88 Отливки стальные. Общие технические условия

ГОСТ 1050—88 Прокат сортовой, калиброванный, со специальной отделкой поверхности из угле-родистой качественной конструкционной стали. Общие технические условия

ГОСТ 1215—79 Отливки из ковкого чугуна. Общие технические условия ГОСТ 1412—85 Чугун с пластинчатым графитом для отливок. Марки

**Издание официальное**

1

**ГОСТ 33259—2015**

ГОСТ 1536—76 Фланцы судовых трубопроводов. Присоединительные размеры и уплотнительные поверхности

ГОСТ 1577—93 Прокат толстолистовой и широкополосный из конструкционной качественной ста-ли. Технические условия

ГОСТ 2590—2006 Прокат сортовой стальной горячекатаный круглый. Сортамент

ГОСТ 2591—2006 Прокат сортовой стальной горячекатаный квадратный. Сортамент

ГОСТ 4433—76 Фланцы арматуры, соединительных частей и трубопроводов судовые. Типы

ГОСТ 4543—71 Прокат из легированной конструкционной стали. Технические условия

ГОСТ 5520—79 Прокат листовой из углеродистой, низколегированной и легированной стали для котлов и сосудов, работающих под давлением. Технические условия

ГОСТ 5632—72 Стали высоколегированные и сплавы коррозионно-стойкие, жаростойкие и жаро-прочные. Марки

ГОСТ 5773—90 Издания книжные и журнальные. Форматы

ГОСТ 6032—2003 (ИСО 3651-1:1998, ИСО 3651-2:1998) Стали и сплавы коррозионно-стойкие. Ме-тоды испытаний на стойкость к межкристаллитной коррозии

ГОСТ 7293—85 Чугун с шаровидным графитом для отливок. Марки

ГОСТ 7350—77 Сталь толстолистовая коррозионно-стойкая, жаростойкая и жаропрочная. Техни-ческие условия

ГОСТ 7505—89 Поковки стальные штампованные. Допуски, припуски и кузнечные напуски

ГОСТ 8479—70 Поковки из конструкционной углеродистой и легированной стали. Общие техни-ческие условия

ГОСТ 9399—81 Фланцы стальные резьбовые на Ру 20—100 МПа (200—1000 кгс/см2). Технические условия

ГОСТ 9454—78 Металлы. Метод испытания на ударный изгиб при пониженных, комнатной и по-вышенных температурах

ГОСТ 9833—73 Кольца резиновые уплотнительные круглого сечения для гидравлических и пнев-матических устройств. Конструкция и размеры

ГОСТ 14140—81 Основные нормы взаимозаменяемости. Допуски расположения осей отверстий для крепежных деталей

ГОСТ 14192—96 Маркировка грузов

ГОСТ 14637—89 (ИСО 4995—78) Прокат толстолистовой из углеродистой стали обыкновенного качества. Технические условия

ГОСТ 14782—86 Контроль неразрушающий. Соединения сварные. Методы ультразвуковые ГОСТ 14792—80 Детали и заготовки, вырезаемые кислородной и плазменно-дуговой резкой. Точ-

ность, качество поверхности реза

ГОСТ 15180—86 Прокладки плоские эластичные. Основные параметры и размеры

ГОСТ 19281—89 (ИСО 4950-2—81, ИСО 4950-3—81, ИСО 4951—79, ИСО 4995—78, ИСО 4996—78, ИСО 5952—83) Прокат из стали повышенной прочности. Общие технические условия

ГОСТ 20072—74 Сталь теплоустойчивая. Технические условия

ГОСТ 20700—75 Болты, шпильки, гайки и шайбы для фланцевых и анкерных соединений, пробки и хомуты с температурой среды от 0 до 650 ºС. Технические условия

ГОСТ 21120—75 Прутки и заготовки круглого и прямоугольного сечения. Методы ультразвуковой дефектоскопии

ГОСТ 22727—88 Прокат листовой. Методы ультразвукового контроля

ГОСТ 23304—78 Болты, шпильки, гайки и шайбы для фланцевых соединений атомных энергети-ческих установок. Технические требования. Приемка. Методы испытаний. Маркировка, упаковка, транс-портирование и хранение

ГОСТ 23055—78 Контроль неразрушающий. Сварка металлов плавлением. Классификация свар-ных соединений по результатам радиографического контроля

ГОСТ 24507—80 Контроль неразрушающий. Поковки из черных и цветных металлов. Методы уль-тразвуковой дефектоскопии

ГОСТ 24856—2014 Арматура трубопроводная. Термины и определения

ГОСТ 25054—81 Поковки из коррозионно-стойких сталей и сплавов. Общие технические условия ГОСТ 25660—83 Фланцы изолирующие для подводных трубопроводов на Pу 10,0 МПа (≈100 кгс/см2).

Конструкция и размеры

2

**ГОСТ 33259—2015**

ГОСТ 26645—851) Отливки из металлов и сплавов. Допуски размеров, массы и припуски на меха-ническую обработку

ГОСТ 28759.1—90 Фланцы сосудов и аппаратов. Типы и параметры

ГОСТ 28759.2—90 Фланцы сосудов и аппаратов стальные плоские приварные. Конструкция и раз-

меры

ГОСТ 28759.3—90 Фланцы сосудов и аппаратов стальные приварные встык. Конструкция и раз-

меры

ГОСТ 28759.4—90 Фланцы сосудов и аппаратов стальные приварные встык под прокладку вось-миугольного сечения. Конструкция и размеры

ГОСТ 28759.5—90 Фланцы сосудов и аппаратов. Технические требования

ГОСТ 30893.1—2002 (ИСО 2768-1—89) Основные нормы взаимозаменяемости. Общие допуски. Предельные отклонения линейных и угловых размеров с неуказанными допусками

ГОСТ 31901—2013 Арматура трубопроводная для атомных станций. Общие технические условия ГОСТ 33260—2015 Арматура трубопроводная. Металлы, применяемые в арматуростроении. Ос-

новные требования к выбору материалов

* р и м е ч а н и е — При пользовании настоящим стандартом целесообразно проверить действие ссылочных стандартов в информационной системе общего пользования — на официальном сайте Федерального агентства по техническому регулированию и метрологии в сети Интернет или по ежегодному информационному указателю «Национальные стандарты», который опубликован по состоянию на 1 января текущего года, и по выпускам еже-месячного информационного указателя «Национальные стандарты» за текущий год. Если ссылочный стандарт заменен (изменен), то при пользовании настоящим стандартом следует руководствоваться замененным (изменен-ным) стандартом. Если ссылочный стандарт отменен без замены, то положение, в котором дана ссылка на него, применяется в части, не затрагивающей эту ссылку.

**3 Термины, определения и сокращения**

3.1 В настоящем стандарте применены термины по ГОСТ 24856.

3.2 В настоящем стандарте применены следующие сокращения: НД — нормативная документация; КД — конструкторская документация; ТУ — технические условия;

МКК — межкристаллитная коррозия;

УЗК — ультразвуковой контроль;

СКР — сульфидное коррозионное растрескивание; ТРГ — терморасширенный графит; СНП — спирально-навитые прокладки;

*PN* —номинальное давление(в стандарте указано в бар или кгс/см2).

**4 Типы фланцев и исполнения уплотнительных поверхностей**

4.1 Типы фланцев и их обозначения приведены на рисунке 1.

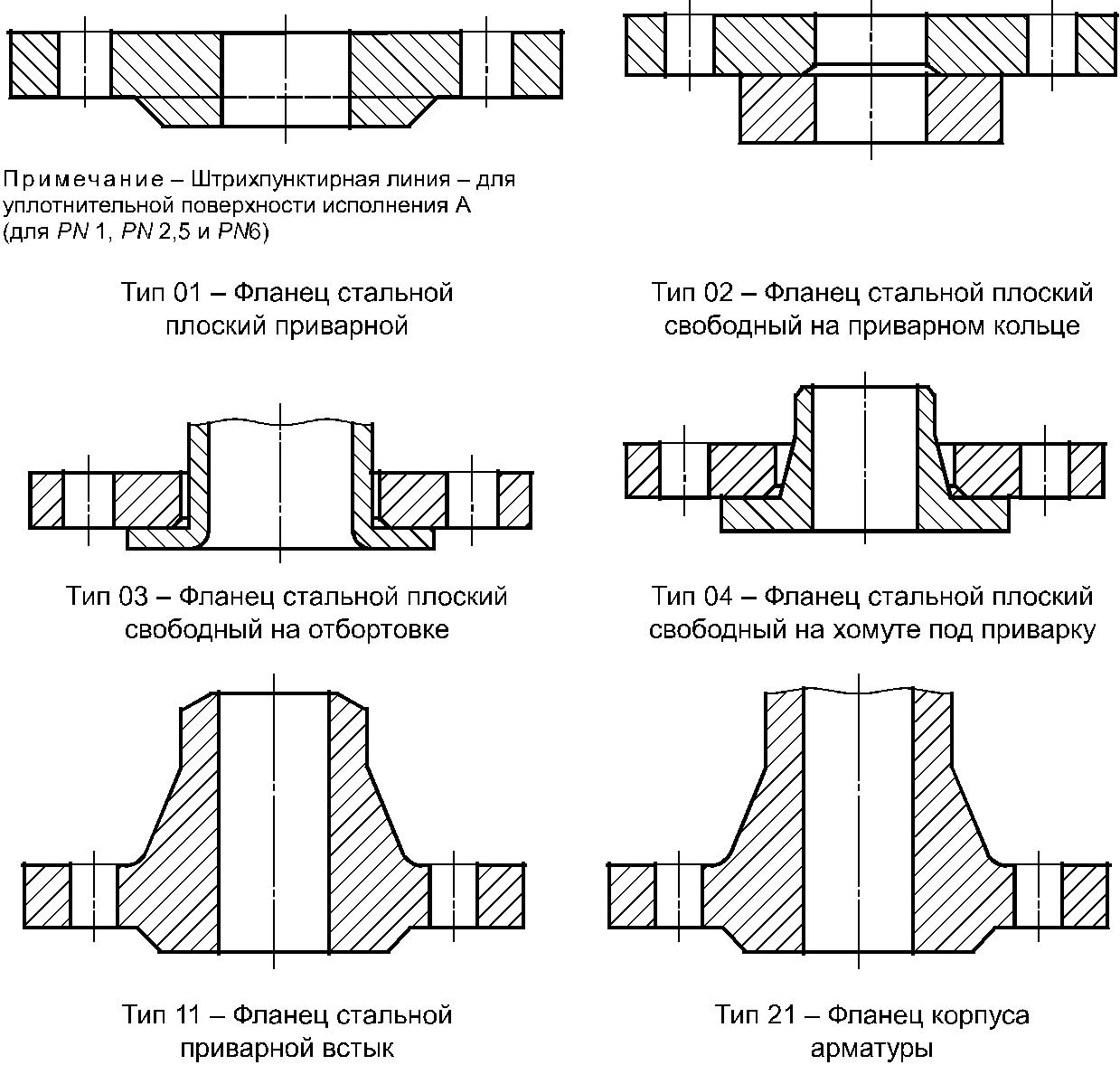
4.2 Исполнения уплотнительных поверхностей и их обозначения приведены на рисунке 2.

4.3 Применяемость фланцев номинального диаметра *DN* в зависимости от номинального давле-ния *PN* для каждого типа фланцев приведена в таблице 1.

1. На территории Российской Федерации действует ГОСТ Р 53464—2009 «Отливки из металлов и сплавов. Допуски размеров, массы и припуски на механическую обработку».

3

**ГОСТ 33259—2015**



П р и м е ч а н и я

1 Фланцы типов 01, 04, 11, 21 соответствуют фланцам типов 01, 04, 11, 21 по [2].

2 Фланцы типа 02 соответствуют фланцам типа 02 с приварным кольцом типа 32 по [2].

3 Фланцы типа 03 соответствуют фланцам типа 02 с отбортовкой типа 33 по [2].

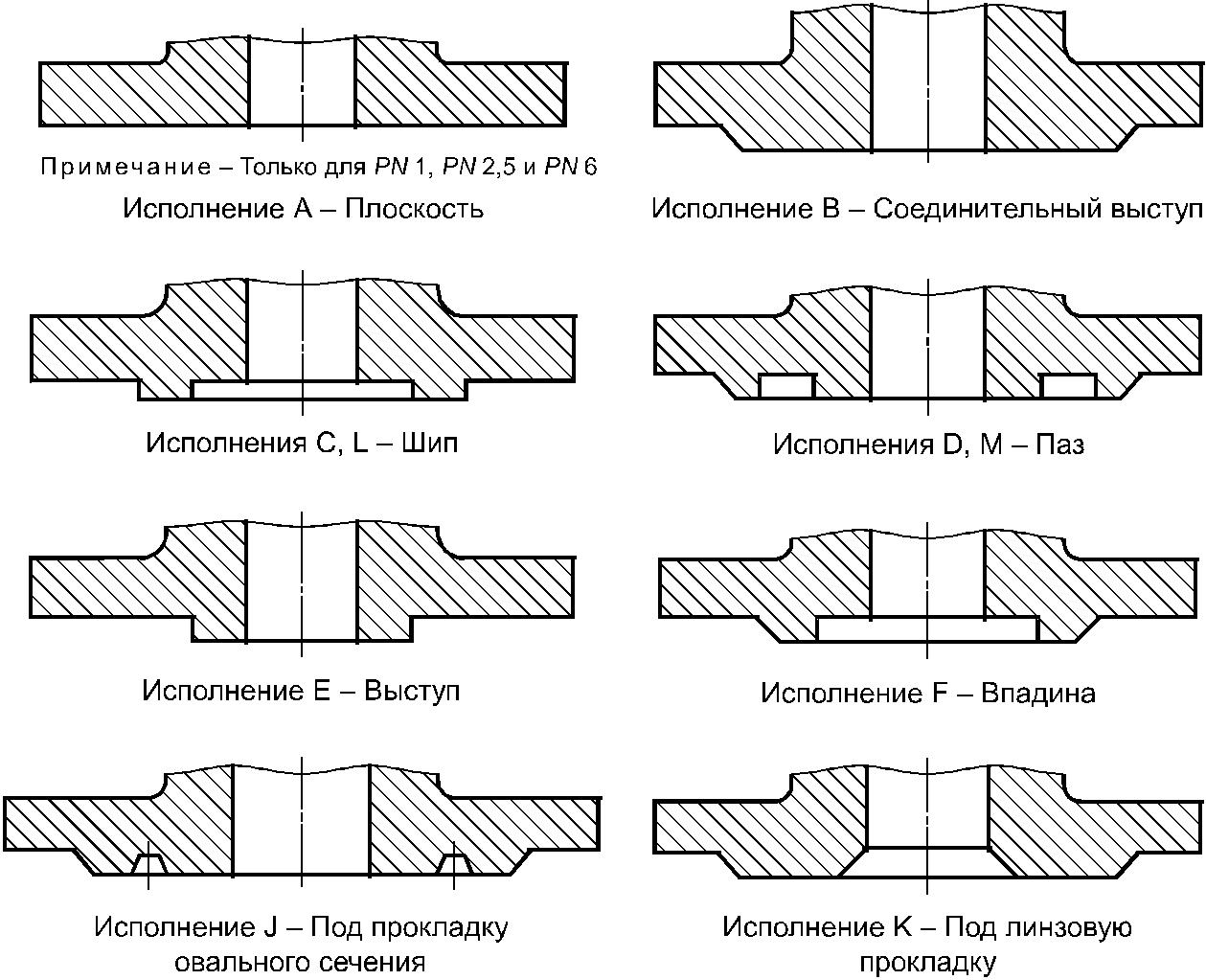
4 Фланцы типа 21 и элемент отбортовки для фланца типа 03 являются элементами арматуры, оборудования или соединительных частей трубопроводов и отдельно не изготавливаются.

5 Фланцы типов 01 и 02 — только для температуры применения не ниже минус 40 °С.

Рисунок 1 — Типы фланцев

4

**ГОСТ 33259—2015**



* р и м е ч а н и е — Уплотнительные поверхности исполнений L и M используют под фторопластовые прокладки.

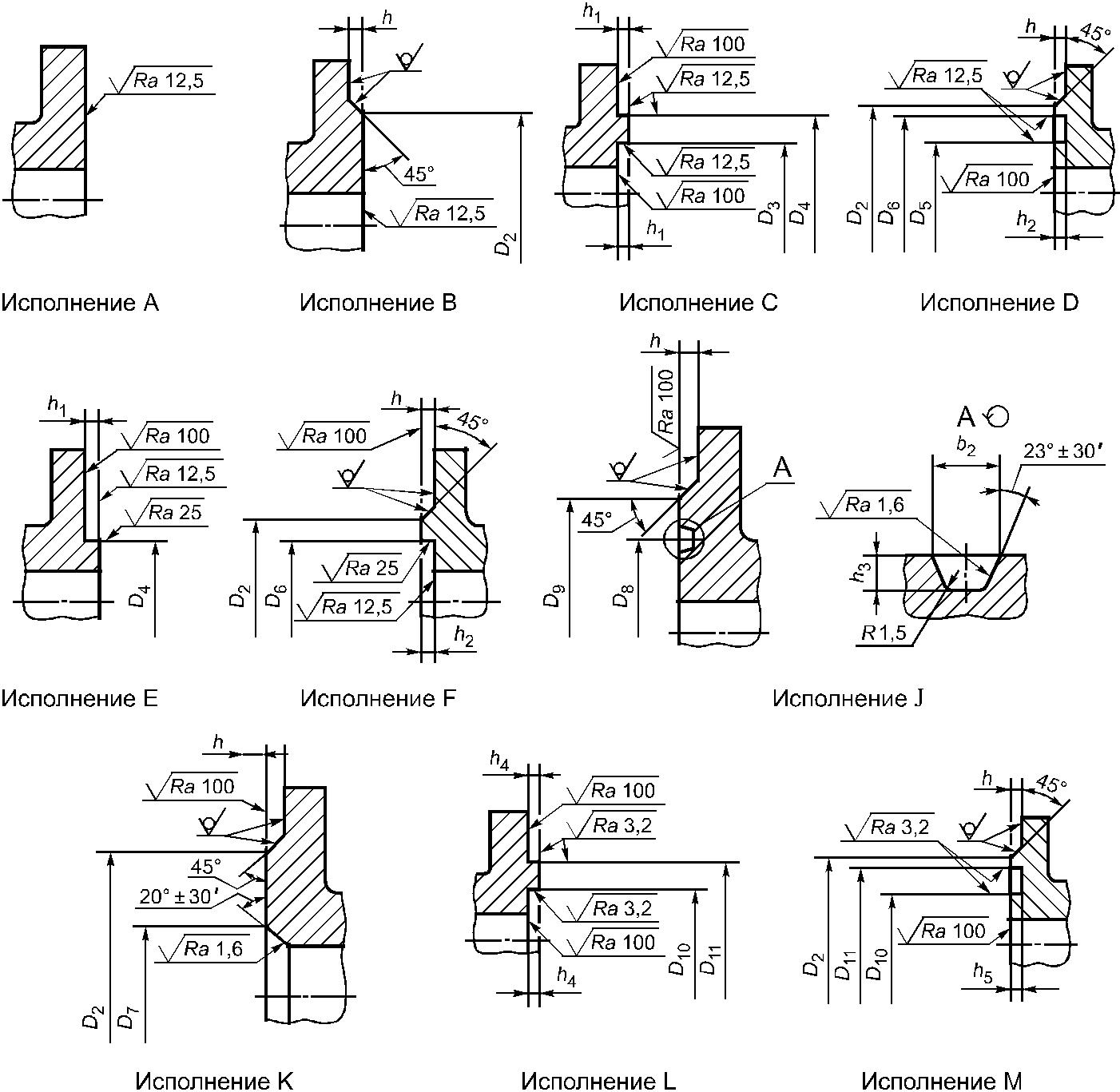
Рисунок 2 — Исполнения уплотнительных поверхностей

5

**ГОСТ 33259—2015**

**5 Размеры уплотнительных поверхностей**

Размеры уплотнительных поверхностей фланцев приведены на рисунке 3 и в таблице 2. Ряд 1 предпочтительный.



П р и м е ч а н и я

1 Допускается вместо угла 45º выполнять скругление радиусом по КД.

2 Исполнение А — только для *PN* 1, *PN* 2,5 и *PN* 6. Толщина фланца для исполнения А приведена в таблицах

3 или 6 (для этого исполнения *h* = 0).

3 Минимальная шероховатость уплотнительных поверхностей для исполнений А, В, С, D, E, F — Ra 3,2; ис-полнений L, M — Ra 0,8, а максимальная приведена на рисунках.

Рисунок 3 — Размеры уплотнительных поверхностей фланцев

9

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *DN* | *PN,* | *D*2 |  | *D*3 | | *D*4 | | |  | *D*5 | | | *D*6 | |  | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ряд 1 | | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  |  | Ряд 2 | Ряд 1 | Ряд 2 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 35 | 19 |  | — | 29 |  | — | 18 |  |  | — | 30 |  | — |  |  |  | 18 | 30 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 | 4 | 3 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* | *PN* 25 |  |  | 24 | | 34 | | | 23 | | | | 35 | |  |  |  |  | 23 | 35 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 | 42 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 18 | 35 | 50 |  |  | 9 |  |  |  | 6,5 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | |  |  |  |  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  | — |  | 24 | — | 34 | | — |  | | 23 | — |  | 35 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — | — | — | — |  |  |  | — | — | — |  |
|  | *PN* 200 | — |  | — | | — | | |  | — | | | — | |  | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | 40 | — |  | 24 | — |  | 34 | — |  | | 23 | — |  | 35 |  |  |  |  |  |  | 2 | 4,5 | 4 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 40 | 23 |  | — | 33 |  | — | 22 |  |  | — | 34 |  | — |  |  |  | 22 | 34 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  | 4 | 3 |  |
| *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 | 47 |  | 29 | | 39 | | | 28 | | | | 40 | |  |  |  |  | 28 | 40 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 35 |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 24 | 55 |  |  | 9 |  |  |  | 6,5 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | 29 |  | — | 39 |  | — | 28 |  |  | — | 40 |  | — |  | 40 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | 45 | — |  | 29 | — | 39 | | — |  | | 28 | — |  | 40 | — | — | — | — | — | — |  | 4,5 | 4 | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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|  |  |  |  |  |  |  | |  |  | | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 |  | *h*3 | *h*4 | *h*5 |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |
|  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 50 | 33 | — | 43 | — | 32 |  |  | — | 44 | — |  |  |  | 32 | 44 |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  |  | — |  |  |
|  |  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |  | 4 | 3 |
|  | *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  | 36 | | 50 | | 35 | | | | 51 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 35 | 51 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 58 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |  | 30 | 45 | 58 |  |  | 9 |  |  |  |  | 6,5 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 |  | 36 | — | 50 | — | 35 |  |  | — | 51 | — |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 250 |  | — | 36 | — | 50 | — |  |  | 35 | — | 51 | — | — | — | — | — | — |  | 4,5 | 4 |  | — | — | — |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  | 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 60 | 41 | — | 51 | — |  |  | — | 52 | — |  |  |  | 40 | 52 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  |  | — |  |  |
|  |  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |  | 4 | 3 |
|  | *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  | 43 | | 57 | | 42 | | | | 58 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 42 | 58 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 68 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 |  | 43 | — | 57 | — | 42 |  |  | — | 58 | — | 35 | 50 | 68 |  |  | 9 |  |  |  |  | 6,5 |  |  |
|  |  | *PN* 200 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 |  | — | 43 | — | 57 | — |  |  | 42 | — | 58 | — | — | — | — | — | — |  | 4,5 | 4 |  | — | — | — |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |
| Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 70 | 49 | — | 59 | — | 48 |  | — | 60 | — |  |  |  | 48 | 60 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  | 4 | 3 |  |
| *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  | 51 | | 65 | | 50 | | | 66 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 50 | 66 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 78 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  | 42 | 65 | 78 |  |  | 9 |  |  |  | 6,5 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | 51 | — | 65 | — | 50 |  | — | 66 | — |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 |  | — | 51 | — | 65 | — |  | 50 | — | 66 | — | — | — | — | — | — |  | 4,5 | 4 | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 80 | 55 | — | 69 | — | 54 |  | — | 70 | — |  |  |  | 54 | 70 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  | 4 | 3 |  |
| *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  | 61 | | 75 | | 60 | | | 76 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 60 | 76 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 88 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 88 |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  | 52 | 75 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 9 |  |  |  | 6,5 |  |  |  |
|  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | 61 | — | 75 | — | 60 |  | — | 76 | — |  |  | 91 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 |  | — | 61 | — | 75 | — |  | 60 | — | 76 | — | — | — | — | — | — |  | 4,5 | 4 | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 |  | *h*3 | *h*4 | *h*5 |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |
|  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 90 | 66 | — | 80 | — | 65 |  | — | 81 | — |  |  |  | 65 | 81 |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  |  | — |  |  |
|  |  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |  | 4 | 3 |
|  | *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  | 73 | | 87 | | 72 | | | 88 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 72 | 88 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 102 |  |  |  |  |  |  |  |  |  |  | 85 | 102 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 |  |  |  |  |  |  |  |  |  |  | 63 |  |  | 12 |  |  |  |  | 8 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  |  |  |  |  |  |  |  |  | 95 | 115 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 |  | 73 | — | 87 | — | 72 |  | — | 88 | — |  |  | 129 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 250 |  | — | 73 | — | 87 | — |  | 72 | — | 88 | — | — | — | — | — | — |  | 4,5 | 4 |  | — | — | — |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 110 | 86 | — | 100 | — | 85 |  | — | 101 | — |  |  |  | 85 | 101 |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — |  |  | — |  |  |  |  | — |  |  |
|  |  | *PN* 10 |  |  |  |  |  |  |  |  |  |  | — |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |  | 4 | 3 |
|  | *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 65 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  | 95 | | 109 | | 94 | | | 110 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 94 | 110 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 122 |  |  |  |  |  |  |  |  |  |  |  | 132 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 110 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 |  | 95 | — | 109 | — | 94 |  | — | 110 | — |  | 167 |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 |  |  |  | 130 |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  |  |  |  |  |  |  |  |  | 85 |  | 140 |  |  | 12 |  |  |  |  | 8 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 |  | — | 95 | \_ | 109 | — |  | 94 | — | 110 | — | — | — | — | — | — |  | 4,5 | 4 |  | — | — | — |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |
| Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 128 | 101 | — | 115 | — | 100 |  |  | — | 116 | — |  |  |  | 100 | 116 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  | 4 | 3 |  |
| *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  | 106 | | 120 | | 105 | | | | 121 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 133 |  |  |  | 105 | 121 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  | 115 | 133 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |  | 97 | 150 |  |  | 12 |  |  |  | 8 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  | 130 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | 106 | — | 120 | — | 105 | |  | — | 121 | — |  | 160 | 190 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | 138 | — | 106 |  | 120 | — |  |  | 105 | — | 121 | — | — | — | — | — | — |  | 4,5 | 4 | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 148 | 117 | — | 137 | — | 116 |  |  | — | 138 | — |  |  |  | 116 | 138 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  | 6 | 5 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  | 129 | | 149 | | 128 | | | | 150 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 158 |  |  |  | 128 | 150 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  | 170 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 145 |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |  | 124 | 175 |  |  | 12 |  |  |  | 8 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | 129 | — | 149 | — | 128 |  |  | — | 150 | — |  | 190 | 245 |  |  |  |  | 4,5 | 3,5 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | 162 | — | 129 | — | 149 | — |  | | 128 | — | 150 | — | — | — | — | — | — |  | 5 | 4,5 | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | | | |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 |  | *h*3 | *h*4 | *h*5 |  |  |  | |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  | 178 | 146 | — | 166 | — | 145 |  |  | — | 167 | — |  |  |  | 145 | 167 |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  |  | — |  |  |  |  |  | |
|  |  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  | 6 | 5 |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | 125 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | *PN* 40 |  | 155 | | 175 | | 154 | | | | 176 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | 184 |  |  |  | 154 | 176 |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  | 175 | 205 |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |  | 153 | 210 |  |  | 12 |  |  |  |  | 8 |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  | 190 |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  | |  | |  | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 200 |  | 155 | — | 175 | — | 154 | | | — | 176 | — |  | 205 | 271 |  |  | 14 |  | 4,5 | 3,5 |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 250 | 188 | — | 155 | — | 175 | — |  | | 154 | — | 176 | — | — | — | — | — | — |  | 5 | 4,5 |  | — | — | — |  |  | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  | 202 | 171 | — | 191 | — | 170 |  |  | — | 192 | — |  |  |  | 170 | 192 |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  |  | — |  |  |  |  |  | |
|  |  | *PN* 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 3 |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | *DN* | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  | 6 | 5 |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | 150 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | *PN* 40 |  | 183 | | 203 | | 182 | | | | 204 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | 212 |  |  |  | 182 | 204 |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  | 240 | 12 |  |  |  |  | 8 |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |  |  | 205 |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  | 183 | — | 203 | — | 182 |  |  | — | 204 | — |  | 306 |  |  | 17 |  | 4,5 | 3,5 |  | 11 |  |  |  |  | |
|  |  | *PN* 200 |  |  |  |  | 240 |  |  |  |  |  |  |  |  | |
|  |  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  | 181 |  | 250 |  |  | 14 |  |  |  |  | 10 |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
|  | *PN* 250 | 218 | — | 183 | — | 203 | — |  |  | 182 | — | 204 | — | — | — | — | — | — |  | 5 | 4,5 |  | — | — | — |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |

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| *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |
| Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 258 | 229 | — | 249 | — | 228 |  |  | — | 250 | — |  |  |  | 228 | 250 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 | 268 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4,0 | 3,0 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* | *PN* 25 | 278 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  | 6 | 5 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 200 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  | 239 | | 259 | | 238 | | | | 260 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 238 | 260 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  | 265 | 285 | 12 |  |  |  | 8 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 285 |  |  |  |  |  |  |  |  |  |  | 243 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  |  |  |  |  |  | 275 | 315 |  |  | 17 |  |  |  | 11 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | 239 | — | 259 | — | 238 |  |  | — | 260 | — |  | 305 | 380 |  |  |  |  | 4,5 | 3,5 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 |  | — | 239 | — | 259 | — |  | | 238 | — | 260 | — | — | — | — | — | — |  | 5 | 4,5 | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 312 | 283 | — | 303 | — | 282 |  |  | — | 304 | — |  |  |  | 282 | 304 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  | *PN* 10 | 320 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4,0 | 3,0 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* | *PN* 25 | 335 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  | 6 | 5 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 250 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  | 292 | | 312 | | 291 | | | | 313 | |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 291 | 313 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  | 320 | 345 | 12 |  |  |  | 8 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 345 |  |  |  |  |  |  |  |  |  |  | 298 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  | 330 | 380 |  |  | 17 |  |  |  | 11 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | 292 | — | 312 | — | 291 |  |  | — | 313 | — | — | — | — |  |  | — |  | 4,5 | 3,5 | — |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 |  | — | 292 | — | 312 | — |  |  | 291 | — | 313 | — | — | — |  | 5 | 4,5 | — | — | — |  |
|  |  |  | |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | *D*6 | |  | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 365 | 336 | — | 356 | — | 335 |  | — | 357 |  | — |  |  |  | 335 | 357 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 370 |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 5,0 | 4,0 |  | 6 | 5 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 300 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 390 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  | |  | |  | | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 |  | 343 | | 363 | | 342 | | | 364 | |  |  |  |  | 342 | 364 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 410 |  |  |  |  |  |  |  |  |  |  |  | 375 |  |  |  | 12 |  |  |  | 8 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 |  |  |  |  |  |  |  |  |  |  | 345 | 410 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  |  |  |  |  |  |  |  |  |  |  | 380 |  |  |  | 23 |  |  |  | 14 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 415 | 386 | — | 406 | — | 385 |  | — | 407 |  | — |  |  |  | 385 | 407 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 430 |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 5 | 4 |  | 6 | 5 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 350 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 450 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 395 | | 421 | | 394 | | | 422 | |  |  |  |  | 394 | 422 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 465 |  |  |  |  |  |  |  |  |  |  | 394 |  |  |  |  | 12 |  |  |  | 8 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 |  |  |  |  |  |  |  |  |  |  | 420 | 465 |  |  | 17 |  |  |  | 11 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  | — | | — | |  | — | | — | |  | — |  |  | — | — | 23 |  | — | — | 14 | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | | *D*6 | |  | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  |  | Ряд 2 | Ряд 1 | Ряд 2 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 465 | 436 | — | 456 | — | 435 |  |  | — | 457 |  | — |  |  |  | 435 | 457 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 482 |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — |  |  |  | — |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 5 | 4 |  | 6 | 5 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 400 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 25 | 505 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 447 | | 473 | | 446 | | | | 474 | | |  |  |  | 446 | 474 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 535 |  |  |  |  |  |  |  |  |  |  |  | 445 |  |  |  |  | 12 |  |  |  | 8 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  | 480 | 535 |  |  | 17 |  |  |  | 11 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | |  | |  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  | — | | — | |  | — | | | — | |  | — |  |  | — | — | 23 |  | — | — | 14 | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 520 | 489 | — | 509 | — | 488 |  |  | — | 510 |  | — |  |  |  | 488 | 510 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 532 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 | 4 |  | 6 | 5 |  |
| *DN* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 16 |  |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — | 4 |  |  | — |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 450 |  | 497 | | 523 | | 496 | | | | 524 | | | 496 | 524 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 555 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 560 | — | 497 | — | 523 | — |  |  | 496 | — |  | 524 |  |  |  | — | — |  |  | 5,5 | 5 |  | — | — |  |
|  |  |  |  | |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 |  | *h*3 | *h*4 | *h*5 |  |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 570 | 541 | — | 561 | — | 540 |  |  | — | 562 | — |  |  |  | 540 | 562 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 10 | 585 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 | 4 |  |  | 6 | 5 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — | 4 |  | — |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 549 | | 575 | | 548 | | | | 576 | |  |  |  | 548 | 576 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 | 615 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 100 |  | — | 549 | — | 575 | — |  | | 548 | — | 576 |  |  |  | — | — |  |  | 5,5 | 5 |  |  | — | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 670 | 635 | — | 661 | — | 634 |  |  | — | 662 | — |  |  |  | 634 | 662 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 10 | 685 |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — | 5 | 6 | 5 |  | — | 6 | 5 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 600 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  | 651 | 649 | 677 | 675 | 650 |  | | 648 | 678 | 676 |  |  |  | 648 | 676 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 | 720 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 | 735 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 775 | 737 | — | 763 | — | 736 |  |  | — | 764 | — |  |  |  | 736 | 764 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 10 | 800 |  |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — | 5 | 6 | 5 |  | — | 6 | 5 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 700 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 751 | | 777 | | 750 | | | | 778 | | 750 | 778 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 25 | 820 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 40 | 840 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 |  | — | 751 | — | 777 | — |  |  | 750 | — | 778 |  |  |  | — | — |  |  | 5,5 |  |  |  | — | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |
| Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 880 | 841 | — | 867 | — | 840 |  | — | 868 | — |  |  |  | 840 | 868 |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |  | — | 6 | 5 |  |
| *DN* | *PN* 10 | 905 |  |  |  |  |  |  |  |  |  | — | — | — |  |  | — | 5 | 5 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 800 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 851 |  | 877 |  | 850 |  |  | 878 |  |  |  |  | 855 | 883 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 930 | 856 | 882 |  | 855 | 883 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 960 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | — |  | — |  | — |  |  | — |  |  |  |  | — | — |  |  | 5,5 |  | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 980 |  | — |  | — |  |  | — |  | — |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* | *PN* 10 | 1005 | — |  | — |  | — |  |  | — |  | — | — | — | — | — | — | 5 | 5,5 | 5 | — | — | — |  |
|  |  |  |  |  |  |  |
| 900 |  |  |  |  |  |  |  |
| *PN* 16 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 961 |  | 987 |  |  | 960 |  | 988 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 1030 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 1070 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1080 |  | — |  | — |  |  | — |  | — |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* | *PN* 10 | 1110 | — |  | — |  | — |  |  | — |  | — | — | — | — | — | — | 5 | 6,5 | 6 | — | — | — |  |
|  |  |  |  |  |  |  |
| 1000 |  |  |  |  |  |  |  |
| *PN* 16 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 1062 |  | 1092 |  |  | 1060 |  | 1094 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 1140 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 1180 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | | *D*5 | | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |
|  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 | 1280 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  | — |  | — |  |  | — |  | — |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 6 | 1295 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 10 | 1330 | — |  | — |  | — | |  | — |  | — | — | — | — | — | — | 5 | 6,5 | 6 | — | — | — |  |  |
|  |  |  |  |  |  |  |  |
|  | 1200 |  |  |  |  |  |  |  |
|  | *PN* 16 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 25 | 1350 |  | 1262 |  | 1292 |  |  | 1260 |  | 1294 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 | 1380 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 1 | 1480 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  | — |  | — |  |  | — |  | — |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 | 1510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 |  | — |  | — |  | — | |  | — |  | — | — | — | — | — | — | 5 | 6,5 | 6 | — | — | — |  |  |
|  | 1400 | 1530 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 |  | 1462 |  | 1492 |  |  | 1460 |  | 1494 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 | 1560 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 40 | 1600 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 | 1690 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  | — |  | — |  |  | — |  | — |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 | 1710 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 |  | — |  | — |  | — | |  | — |  | — | — | — | — | — | — | 5 | 6,5 | 6 | — | — | — |  |  |
|  | 1600 | 1750 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 |  | 1662 |  | 1692 |  |  | 1660 |  | 1694 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 | 1780 |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 1815 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22 | *Продолжение таблицы 2* | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Размеры в миллиметрах | | | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | | *D*5 | | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 |  | *h*3 | *h*4 | *h*5 |  |
|  |  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 1 | 1890 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 2,5 |  | — |  | — |  |  | — |  | — |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *DN* | *PN* 6 | 1920 | — |  | — |  | — | |  | — |  | — | — | — | — | — | — | 5 | 6,5 | 6 |  | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  | 1800 |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 1950 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 16 |  | 1862 |  | 1892 |  |  | 1860 |  | 1894 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | *PN* 25 | 1985 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 1 | 2090 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 2,5 |  | — |  | — |  |  | — |  | — |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *DN* | *PN* 6 | 2125 | — |  | — |  | — | |  | — |  | — | — | — | — | — | — | 5 | 6,5 | 6 |  | — | — | — |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  | 2000 |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 2150 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | *PN* 16 |  | 2062 |  | 2092 |  |  | 2060 |  | 2094 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | *PN* 25 | 2210 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 1 | 2295 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *DN* | *PN* 2,5 | — | | — | | — | | | — | | — | — | — | — | — | — | 6 | — | — | | — | — | — |  |
|  |  |  |  |
|  |  |  |  |  |
|  |  | 2200 |  |  |  |
|  |  | *PN* 6 | 2335 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | *PN* 10 | 2370 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 1 | 2495 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *DN* | *PN* 2,5 | — | | — | | — | | | — | | — | — | — | — | — | — | 6 | — | — | | — | — | — |  |
|  |  |  |  |
|  |  |  |  |  |
|  |  | 2400 |  |  |  |
|  |  | *PN* 6 | 2545 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | *PN* 10 | 2570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | *PN* 1 | 2695 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *DN* | *PN* 2,5 | — | | — | | — | | | — | | — | — | — | — | — | — | 6 | — | — | | — | — | — |  |
|  |  |  |  |
|  |  |  |  |  |
|  |  | 2600 |  |  |  |
|  |  | *PN* 6 | 2750 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | *PN* 10 | 2780 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **ГОСТ 33259—2015** |

*Окончание таблицы 2*

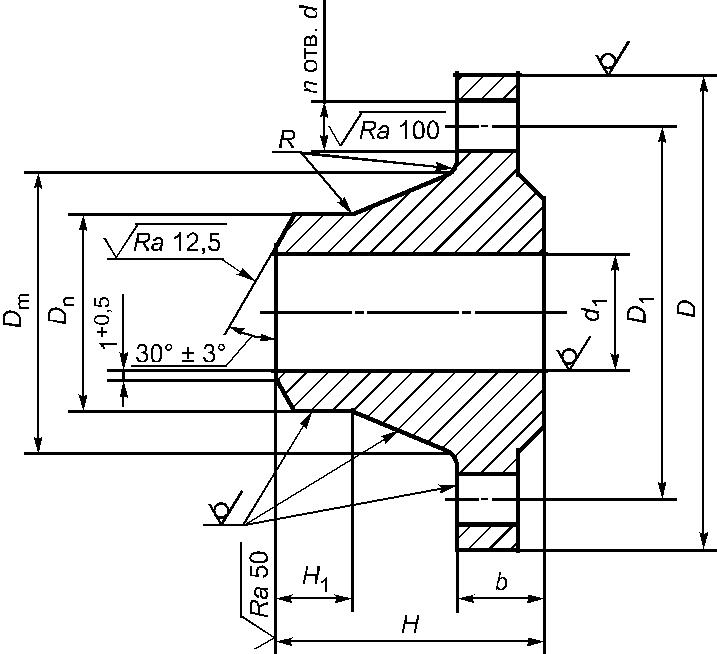
Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | *DN* | *PN,* | *D*2 | *D*3 | | *D*4 | |  | *D*5 | | *D*6 | | *D*7 | *D*8 | *D*9 | *D*10 | *D*11 | *b*2 | *h* | *h*1 | *h*2 | *h*3 | *h*4 | *h*5 |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |
|  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 | 2910 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 2,5 | — | | — | |  | — | | — | | — | — | — | — | — | — | 6 | — | — | — | — | — |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |
|  | 2800 |  |  |  |  |  |
|  | *PN* 6 | 2960 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 3000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 | 3110 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 2,5 | — | | — | |  | — | | — | | — | — | — | — | — | — | 6 | — | — | — | — | — |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |
|  | 3000 |  |  |  |  |  |
|  | *PN* 6 | 3160 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | *PN* 10 | 3210 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 2,5 | 3310 | — | | — | |  | — | | — | | — | — | — | — | — | — | 5 | — | — | — | — | — |  |  |
|  |  |  |  |  |  |
|  | 3200 |  |  |  |  |  |
|  | *PN* 6 | 3370 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 2,5 | 3510 | — | | — | |  | — | | — | | — | — | — | — | — | — | 5 | — | — | — | — | — |  |  |
|  |  |  |  |  |  |
|  | 3400 |  |  |  |  |  |
|  | *PN* 6 | 3580 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 2,5 | 3720 | — | | — | |  | — | | — | | — | — | — | — | — | — | 5 | — | — | — | — | — |  |  |
|  |  |  |  |  |  |
|  | 3600 |  |  |  |  |  |
|  | *PN* 6 | 3790 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 2,5 | 3920 | — | | — | |  | — | | — | | — | — | — | — | — | — | 5 | — | — | — | — | — |  |  |
|  | 3800 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* | *PN* 2,5 | 4120 | — | | — | |  | — | | — | | — | — | — | — | — | — | 5 | — | — | — | — | — |  |  |
|  | 4000 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | П р и м е ч а н и я | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 |  | 1 Ряд 2 соответствует [2]. | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **2015—33259ГОСТ** |  |
|  | 2 Для ряда 2 фланцы с уплотнительными поверхностями исполнений С, D, E, F в соответствии с рисунком 3 не применяются на *PN* 2,5 и *PN* 6. | | | | | | | | | | | | | | | | | | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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6.4 Размеры фланцев стальных приварных встык (тип 11) приведены на рисунке 7 и в таблице 6.

Ряд 1 предпочтительный.



П р и м е ч а н и я

1 Разделка кромки под сварку приведена для фланцев ряда 1.

2 Разделка кромок под сварку для фланцев ряда 2 — в соответствии с [2].

3 Радиусы *R* — по КД.

4 Допускается изготовление фланцев с другими видами разделки под сварку по технической документации (НД, КД), утвержденной в установленном порядке.

Рисунок 7 — Размеры фланцев стальных приварных встык (тип 11)

45

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| --- |
| 46 |

Т а б л и ц а 6 — Размеры фланцев стальных приварных встык, тип 11 (см. рисунок 7)

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | | *n* | |  | диаметр | |  |
| *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 10 |  | — | 25 |  | — |  | 75 | | — |  | 11 | | — | 4 |  | — | М10 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 22 | 26 |  |  |  |  |  | 12 |  | 28 |  | 75 | | | 50 | 11 | | |  |  |  | М10 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  | 12 |  | 29 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 15 |  | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  | 28 |  |  | 14 |  | 14 | 35 |  | 35 |  | 90 | | | 60 |  |  |  | 4 | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 10 | *PN* 25 | 26 |  | 17,2 |  | 13,2 | 16 |  |  | 6 | 14 | | |  | М12 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 34 |  |  |  |  |  | 18 |  |  | 48 |  |  |  | 100 | | |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 32 |  |  |  |  |  | 20 | 45 |  | 45 |  | 70 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |
|  | *PN* 160 | — |  | — |  | — |  | — |  |  | — |  |  |  | — |  | 100 |  | — |  | 14 | — |  | 4 | — | М12 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | 44 |  | 12 |  | 24 |  | 58 |  |  | 125 | 85 |  | 18 | М16 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 10 |  | — | 28 |  | — |  | 80 | | — |  | 11 | | — | 4 |  | — | М10 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 28 | 30 |  |  |  |  |  | 12 |  | 30 |  | 80 | | | 55 | 11 | | |  |  |  | М10 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  | 12 |  | 30 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 |  |  |  |  |  | 17,3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 30 | 32 | 19 | 21,3 | 12 | 14 |  | 14 | 35 |  | 38 |  | 95 | | | 65 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 15 | *PN* 25 |  | 16 |  |  | 6 |  |  |  | 4 | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 14 | | |  |  |  | М12 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  |  |  |  |  | 14,9 | 18 |  |  | 48 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 38 | 34 |  |  |  | 20 |  | 20 |  | 45 |  | 105 | | | 75 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  | 17,3 |  |  | 52 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 | 40 | — | 23 | — | 14 | — | 26 |  | — | 54 |  | — |  | 120 |  | — | 82 | 22 |  | — | 4 |  | — | М20 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 48 | — | 21,3 | — | 16,1 | — |  | 26 | — |  | 60 |  | — |  | 130 | 90 | — |  | 18 | — |  | 4 | — | М16 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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*Продолжение таблицы 6*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Размеры в миллиметрах | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |  |
|  |  | *PN*, | *D*m | |  | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | | *n* | |  | диаметр | |  |  |
|  | *DN* |  |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |  |
|  |  |  | Ряд 1 | Ряд 2 | Ряд 1 | | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  | — |  |  | — |  | — | 10 |  | — | 30 |  | — |  | 90 | | — |  | 11 | | — | 4 |  | — | М10 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 36 | 38 |  |  |  |  |  |  | 14 |  | 32 |  | 90 | | | 65 | 11 | | |  |  |  | М10 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  | 12 |  | 32 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 38 | 40 |  |  |  |  | 22,3 | 14 |  | 18 | 38 |  | 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 | 26 |  | 26,9 | 18 |  |  |  | 105 | | | 75 | 14 | | | 4 | |  | М12 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 20 | *PN* 25 | 38 | 40 |  |  | 16 |  | 18 | 36 |  | 40 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 |  | 42 |  |  |  |  | 20,5 | 20 |  | 22 | 56 |  | 48 |  |  |  | 130 |  | 18 | | |  |  |  | М16 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 | 48 |  |  |  |  | 22 |  | 53 |  |  | 125 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8 |  |  |  | 90 |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  |  |  |  |  |  | 22 |  |  | 58 |  |  |  |  |  | 18 |  |  |  |  |  | М16 |  |  |  |
|  |  |  |  | — |  |  | — |  | — |  |  | — |  |  | — |  |  |  | — |  |  |  | — | 4 |  | — |  | — |  |  |
|  |  | *PN* 200 | 46 | 29 |  | 19 | 28 |  | 57 |  |  | 130 |  |  | 22 |  |  | М20 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 250 | 46 |  |  |  |  | 33 |  |  | 62 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  | — |  |  | — |  | — | 10 |  | — | 30 |  | — |  | 100 |  | — |  | 11 |  | — | 4 |  | — | М10 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 42 | 42 |  |  |  |  |  |  | 14 |  | 35 |  | 100 | | | 75 | 11 | | |  |  |  | М10 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  |  |  |  | 32 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 14 |  |  |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 |  |  |  |  |  |  | 28,5 |  | 18 | 40 |  | 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 | 45 | 46 | 33 |  | 33,7 | 25 |  |  |  |  | 115 | | | 85 | 14 | | |  |  |  | М12 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 25 | *PN* 25 |  |  | 16 |  | 18 | 38 |  | 40 |  | 4 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **ГОСТ** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 52 | 52 |  |  |  |  | 26,5 | 22 |  | 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 58 |  | 58 |  | 135 |  | 140 | 100 | 18 | | |  |  |  | М16 | |  |  |
|  |  | *PN* 100 |  |  |  |  |  |  |  | 24 |  |  |  |  |  |  |  |  | **—33259** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 | 52 | — |  |  |  |  | 27,9 |  | 24 | |  |  |  | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 | 54 |  | 36 |  | — |  | — | 30 |  | — | 62 |  | — | 150 |  | — | 102 | 26 |  | — | 4 |  | — | М24 | — | **2015** |  |
| 47 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 60 | — |  | 33,7 | — | 26,5 | — |  | 28 | — |  | 65 |  | — |  | 150 | 105 | — |  | 22 | — |  | 4 | — | М20 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| 48 |

*Продолжение таблицы 6*

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | |  | *n* | | диаметр | |  |
| *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 | | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 10 |  | — | 30 |  | — |  | 120 |  | — |  | 14 |  | — | 4 |  | — | М12 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 50 | 55 |  |  |  |  |  | 16 |  | 35 |  | 120 | | | 90 |  | 14 | |  |  |  | М12 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  | 14 |  | 35 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 55 |  |  |  |  | 37,2 | 15 |  | 18 | 42 |  | 42 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 56 | 39 | 42,4 |  |  |  |  | 135 |  | 140 | 100 |  | 18 | |  | 4 | | М16 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 32 | *PN* 25 | 56 | 31 |  | 18 | | | 45 |  | 42 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  | 62 |  |  |  | 35,2 | 23 |  | 24 | 62 |  | 60 |  |  |  | 155 |  |  | 22 | |  |  |  | М20 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 |  |  |  |  | 24 |  |  | 8 | 150 |  | 110 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 | 64 |  |  |  |  |  | 24 |  |  | 67 |  |  |  |  |  |  |  | 22 |  |  |  |  |  | М20 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 |  | — | 43 | — |  | — | 32 |  | — |  | — |  | 160 |  | — | 115 | 26 |  | — | 4 |  | — | М24 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 |  |  |  |  |  | 37 |  |  | 72 |  |  | 9 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 12 |  | — | 36 |  | — |  | 130 |  | — |  | 14 |  | — | 4 |  | — | М12 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 60 | 62 |  |  |  |  |  | 14 |  | 38 |  | 130 | | | 100 |  | 14 | |  |  |  | М12 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  | 15 |  | 38 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 38 |  |  |  |  |  |  |  | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 62 |  |  |  | 43,1 | 16 |  | 18 | 45 |  | 45 | 145 |  | 150 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  | 64 | 46 |  |  |  |  |  |  | 110 |  | 18 | |  |  |  | М16 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 40 | *PN* 25 | 64 | 48,3 |  |  | 19 |  | 18 | 48 |  | 45 |  | 145 |  | 150 |  |  | 4 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 |  |  |  |  |  |  |  | 48 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 74 |  |  |  |  |  | 24 |  | 26 | 68 |  | 62 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 76 | 70 |  |  | 37 | 41,1 | 26 |  | 70 |  |  | 165 |  | 170 | 125 |  | 22 | |  |  |  | М20 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  |  |  |  | 28 | | | 75 |  | 64 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 | 74 | — | 49 | — | 36 | — | 34 |  | — |  |  | — |  | 170 |  | — | 124 | 26 |  | — | 4 |  | — | М24 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 84 | — | 48,3 | — | 38,3 | — |  | 34 | — |  | 80 |  | — |  | 185 | 135 | — |  | 26 | — |  | 4 | — | М24 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **ГОСТ 33259—2015** |

*Продолжение таблицы 6*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Размеры в миллиметрах | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |  |
|  |  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | |  | *n* | | диаметр | |  |  |
|  | *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |  |
|  |  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 | | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  | — |  | — |  | — | 12 |  | — | 36 |  | — |  | 140 |  | — |  | 14 |  | — | 4 |  | — | М12 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 70 |  |  |  |  |  |  | 14 |  | 38 |  | 140 | | | 110 |  | 14 | |  |  |  | М12 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  | 74 |  |  | 49 |  | 15 |  | 38 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 |  |  |  |  |  | 54,5 | 16 |  | 18 | 45 |  | 45 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 | 76 |  | 58 |  |  |  | 48 |  |  | 160 |  | 165 | 125 |  | 18 | |  |  |  | М16 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 50 | *PN* 25 | 75 | 60,3 |  |  | 20 | | | 48 |  | 48 |  |  |  |  | 4 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  |  | 48 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  | |  |  |
|  |  | *PN* 63 |  | 82 |  |  | 47 |  | 26 | | | 70 |  | 62 |  | 175 |  | 180 | 135 |  | 22 | |  |  |  | М20 | |  |  |
|  |  |  | 86 |  |  |  |  | 52,3 |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 | 90 |  |  | 45 | 28 | | | 71 |  | 68 |  | 195 | | | 145 |  | 26 | |  |  |  | М24 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  |  |  | 30 | | | 78 |  | 75 | 10 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 | 105 | — | 61 | — | 46 | — | 40 |  | — | 98 |  | — |  | 210 |  | — | 160 | 26 |  | — | 8 |  | — | М24 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 250 | — | 95 | — | 60,3 | — | 47,7 | — |  | 38 | — |  | 85 |  | — |  | 200 | 150 | — |  | 26 | — |  | 8 | — | М24 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  | — |  | — |  | — | 12 |  | — | 36 |  | — |  | 160 |  | — |  | 14 |  | — |  |  |  | М12 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 88 | 88 |  |  |  |  |  | 14 |  | 38 | 9 | 160 | | | 130 |  | 14 | |  | 4 | | М12 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  |  |  | 15 |  | 38 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 66 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  |  | *PN* 10 | 94 | 92 |  |  | 70,3 | 18 | | | 48 |  | 45 |  |  |  |  | 145 |  |  |  | 4 |  | 8 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 | 77 |  |  | 50 |  | 10 | 180 |  | 185 |  |  |  |  | 8\* |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 65 | *PN* 25 | 96 | 90 | 76,1 |  |  | 22 | | | 53 |  | 52 | 145 |  | 18 | |  |  |  | М16 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **ГОСТ** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 106 | 98 |  |  | 64 | 68,1 | 28 |  | 26 | 75 |  | 68 |  | 200 |  | 205 | 160 |  |  |  |  | 8 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 | 110 | 108 |  |  | 62 |  | 32 |  | 30 | 83 |  | 76 |  | 220 | | | 170 |  | 26 | |  |  |  | М24 | | **—33259** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  | 66,1 | 34 | | | 88 |  | 82 | 12 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 | 138 | — | 90 | — | 68 | — | 48 |  | — | 121 |  | — |  | 260 |  | — | 203 | 30 |  | — | 8 |  | — | М27 | — | **2015** |  |
| 49 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 124 | — | 76,1 | — | 60,1 | — |  | 42 | — |  | 95 |  | — |  | 230 | 180 | — |  | 26 | — |  | 8 | — | М24 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |
| --- |
| 50 |

*Продолжение таблицы 6*

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | | *n* | |  | диаметр | |  |
| *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 14 |  | — | 38 |  | — |  |  |  | — |  | 18 | | — | 4 | — | | М16 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 102 | 102 |  |  |  |  |  | 16 |  | 42 |  | 185 |  | 190 | 150 |  |  |  | 4 | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  | 16 |  | 40 |  | 10 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 78 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 105 |  |  |  | 82,5 | 18 |  | 20 | 50 |  | 50 |  |  |  |  |  | 18 | | | 4 |  | 8 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 110 | 105 | 90 |  |  | 20 |  | 53 |  |  | 195 |  | 200 | 160 |  | М16 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 80 | *PN* 25 | 88,9 |  |  | 22 |  | 24 | 55 |  | 58 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 | 112 |  |  |  |  |  | 24 |  | 58 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | | 8 | |  |  |  |  |
|  | *PN* 63 | 120 | 112 |  |  | 77 | 79,9 | 30 |  | 28 | 75 |  | 72 |  | 210 |  | 215 | 170 | 22 | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 124 | 120 |  |  | 75 | 78,9 | 34 |  | 32 | 90 |  | 78 | 230 | | | 180 | 26 | | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  | 76,3 | 36 | | | 93 |  | 86 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 | 162 | — | 110 | — | 80 | — | 54 |  | — | 135 |  | — |  | 290 |  | — | 230 | 33 |  | — | 8 |  | — | М30 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 136 | — | 101,6 | — | 79,6 | — |  | 46 | — |  | 102 |  | — |  | 255 | 200 | — |  | 30 | — |  | 8 | — | М27 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 14 |  | — | 40 |  | — |  |  |  | — |  | 18 | | — | 4 | — | | М16 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 122 | 130 |  |  |  |  |  | 16 |  | 45 | 10 | 205 |  | 210 | 170 |  |  |  | 4 | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  | 16 |  | 41 |  |  |  |  |  | 18 | | |  | М16 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 128 | 131 |  |  | 96 | 107,1 | 20 |  | 20 | 51 |  | 52 |  | 215 |  | 220 | 180 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 130 | 110 |  |  |  | 53 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 114,3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 100 | *PN* 25 | 132 | 134 |  |  | 24 |  | 24 | 61 |  | 65 |  | 230 |  | 235 | 190 | 22 | | |  |  |  | М20 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 40 | 138 |  |  |  |  | 26 |  | 68 |  | 12 |  | 8 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 140 | 138 |  |  | 94 | 105,3 | 32 |  | 30 | 80 |  | 78 | 250 | | | 200 | 26 | | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 146 | 150 |  |  | 92 | 103,1 | 38 |  | 36 | 100 |  | 90 |  | 265 | | | 210 | 30 | | |  |  |  | М27 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  | 98,3 | 40 | | | 103 |  | 100 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 | 208 | — | 135 | — | 102 | — | 66 |  | — | 178 |  | — |  | 360 |  | — | 292 | 39 |  | — | 8 |  | — | М36 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 164 | — | 127 | — | 98,6 | — |  | 54 | — |  | 120 | 14 | — |  | 300 | 235 | — |  | 33 | — |  | 8 | — | М30 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **ГОСТ 33259—2015** |

*Продолжение таблицы 6*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Размеры в миллиметрах | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |  |
|  |  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | | *n* | |  | диаметр | |  |  |
|  | *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |  |
|  |  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 | | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |
|  |  | *PN* 1 |  | — |  | — |  | — | 14 |  | — | 40 |  | — |  |  |  | — |  | 18 | | — | 8 | — | | М 16 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 148 | 155 |  |  |  |  |  | 18 |  | 48 | 10 | 235 |  | 240 | 200 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  |  |  | 121 |  | 18 |  | 43 |  |  |  |  |  | 18 | | |  |  |  | М16 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 156 | 156 |  |  | 131,7 | 22 | | | 60 |  | 55 |  | 245 |  | 250 | 210 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 | 135 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 139,7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8 | |  |  |  |  |  |
|  | *DN* 125 | *PN* 25 | 160 | 162 |  |  | 26 |  | 26 | 68 |  | 68 | 12 | 270 | | | 220 | 26 | | |  | М24 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  | 120 |  | 28 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  | | |  |  |  |  | |  |  |
|  |  | *PN* 63 | 172 | 168 |  |  | 118 | 128,5 | 36 |  | 34 | 98 |  | 88 |  | 295 | | | 240 | 30 | | |  |  |  | М27 | |  |  |
|  |  | *PN* 100 | 180 | 180 |  |  | 112 |  | 42 |  | 40 | 115 |  | 105 |  | 310 |  | 315 | 250 | 33 | | |  |  |  | М30 | |  |  |
|  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  | 119,7 | 44 | | | 118 |  | 115 | 14 |  |  |  |  |  | | |  |  |  |  | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 | 234 | — | 170 | — | 130 | — | 76 |  | — | 178 |  | — |  | 385 |  | — | 318 | 39 |  | — | 12 |  | — | М36 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 250 | — | 200 | — | 152,4 | — | 120,4 | — |  | 60 | — |  | 140 | 16 | — |  | 340 | 275 | — |  | 33 | — |  | 12 | — | М30 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |
|  |  | *PN* 1 |  | — |  | — |  | — | 14 |  | — | 41 |  | — |  |  |  | — |  | 18 | | — | 8 | — | | М16 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 172 |  |  |  |  |  |  | 18 |  | 48 |  | 260 |  | 265 | 225 | 18 | | |  |  |  | М16 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  | 184 |  |  | 146 |  | 18 |  | 46 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 180 |  |  | 159,3 | 22 | | | 60 |  | 55 |  | 280 |  | 285 | 240 | 22 | | |  |  |  | М20 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 |  | 161 |  |  | 12 | 8 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 168,3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 150 | *PN* 25 | 186 | 192 |  |  | 28 |  | 28 | 71 |  | 75 |  | 300 | | | 250 | 26 | | |  |  |  | М24 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  | 145 |  | 30 |  |  | 75 |  |  |  |  | **ГОСТ** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 206 | 202 |  |  | 142 | 155,7 | 38 |  | 36 | 108 |  | 95 |  | 340 |  | 345 | 280 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 33 | | |  | |  | М30 | |  |  |
|  |  | *PN* 100 | 214 | 210 |  |  | 136 | 152,3 | 46 |  | 44 | 128 |  | 115 |  | 350 |  | 355 | 290 | 12 | |  | **33259** |  |
|  |  | *PN* 160 |  |  | 143,3 | 50 | | | 133 |  | 128 | 14 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 200 | 266 | — | 196 | — | 150 | — | 82 |  | — | 193 |  | — |  | 440 |  | — | 360 | 45 |  | — | 12 |  | — | М42 | — | **—** |  |
|  |  |  |  |  |  |  |  | **2015** |  |
| 51 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 200 | — | 177,8 | — | 142,8 | — |  | 68 | — |  | 160 | 18 | — |  | 390 | 320 | — |  | 36 | — |  | 12 | — | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- |
| 52 |

*Продолжение таблицы 6*

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | | *n* | |  | диаметр | |  |
| *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 | | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 16 |  | — | 48 |  | — |  |  |  | — |  | 18 | | — | 8 | — | | М16 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 235 | 236 |  |  |  |  |  | 20 |  | 55 | 15 | 315 |  | 320 | 280 | 18 | | |  |  |  | М16 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  | 202 |  | 20 |  | 53 |  |  |  |  |  | 8 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 206,5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 240 | 234 |  |  | 22 |  | 24 | 61 |  | 62 |  | 335 |  | 340 | 295 | 22 | | |  |  |  | М20 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 235 | 222 |  |  |  | 24 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 219,1 |  |  |  | |  |  |  |  |  |  | |  |  |  | | |  |  |  |  | |  |
| *DN* 200 | *PN* 25 | 245 | 244 |  |  | 30 | | | 78 |  | 80 |  | 360 | | | 310 | 26 | | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 250 |  |  |  | 200 | 203,1 | 38 |  | 34 | 88 |  | 88 | 16 | 375 | | | 320 | 30 | | | 12 | |  | М27 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 264 | 256 |  |  | 198 | 204,9 | 44 |  | 42 | 113 |  | 110 |  | 405 |  | 415 | 345 | 33 |  |  |  |  |  | М30 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  | 36 |  |  |  |  | М33 |  |
|  | *PN* 100 | 276 | 278 |  |  | 190 | 201,5 | 54 |  | 52 | 143 |  | 130 |  | 430 | | | 360 | 39 |  |  |  |  | М36 |  |
|  | *PN* 160 |  |  | 187,1 | 60 | | | 148 |  | 140 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 | 340 | — | 248 | — | 192 | — | 92 |  | — | 233 |  | — |  | 535 |  | — | 440 | 52 |  | — | 12 |  | — | М48 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 305 | — | 244,5 | — | 194,5 | — |  | 82 | — |  | 190 | 25 | — |  | 485 | 400 | — |  | 42 | — |  | 12 | — | М39 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |
|  | *PN* 1 | 288 | — |  | — |  | — | 19 |  | — | 48 |  | — |  |  |  | — |  | 18 | | — | 12 | — | | М16 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 290 |  |  |  |  |  | 22 |  | 60 | 15 | 370 |  | 375 | 335 | 18 | | |  |  |  | М16 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 | 288 |  |  | 254 | 260,4 | 21 |  | 53 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 290 | 292 |  |  | 24 |  | 26 | 63 |  | 68 | 16 | 390 |  | 395 | 350 | 22 | | |  |  |  | М20 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 292 | 278 |  |  |  | 26 | | | 68 |  | 70 | 405 | | | 355 | 26 | | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 250 | *PN* 25 | 300 | 298 | 273 |  | 258,8 | 32 | | | 78 |  | 88 |  | 425 | | | 370 | 30 | | | 12 | |  | М27 | |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | |  |  |  |  |  |  | |  |  | | |  |  |  |  | |  |
| *PN* 40 | 310 | 306 |  |  | 252 | 42 |  | 38 | 101 |  | 105 |  | 445 |  | 450 | 385 | 33 | | |  |  |  | М30 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |
|  | *PN* 63 | 316 | 316 |  |  | 246 | 255,4 | 48 |  | 46 | 118 |  | 125 | 18 | 470 | | | 400 |  |  | 36 |  |  |  |  | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 340 | 340 |  |  | 236 | 253 | 60 | | | 163 |  | 157 |  | 500 |  | 505 | 430 | 39 |  | 39 |  |  |  | М36 | М36 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  |  | 68 | | | 168 |  | 155 |  |  | 515 |  |  | 42 |  |  |  |  | М39 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 200 | 460 | — | 330 | — | 254 | — | 110 |  | — | 303 |  | — |  | 670 |  | — | 572 | 56 |  | — | 16 |  | — | М52 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 250 | — | 385 | — | 298,5 | — | 234,5 | — |  | 100 | — |  | 215 | 30 | — |  | 585 | 490 | — |  | 48 | — |  | 16 | — | М45 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **ГОСТ 33259—2015** |

*Продолжение таблицы 6*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Размеры в миллиметрах | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |  |
|  |  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | |  | *n* | | диаметр | |  |  |
|  | *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |  |
|  |  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  | |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  | — |  | — |  | — | 20 |  | — | 49 |  | — |  |  |  | — |  | 22 | | — | 12 | | — | М20 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 340 |  |  |  |  |  |  | 22 |  | 62 | 15 | 435 |  | 440 | 395 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  | 342 |  |  | 303 | 309,7 | 22 |  | 54 |  |  |  |  |  | 22 | | | 12 | | | М20 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 345 |  |  |  | 26 | | | 64 |  | 68 | 16 | 440 |  | 445 | 400 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 300 | *PN* 16 | 346 | 344 | 330 |  |  |  | 28 | | | 70 |  | 78 | 460 | | | 410 | 26 | | |  |  |  | М24 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | |  |  |  |  |  | | |  |  | | |  |  |  |  | |  |  |
|  | *PN* 25 | 352 | 352 | 323,9 |  | 307,9 | 36 |  | 34 | 84 |  | 92 |  | 485 | | | 430 | 30 | | |  |  |  | М27 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  | | |  |  |  |  | |  |  |
|  |  | *PN* 40 | 368 | 362 |  |  | 301 | 46 |  | 42 | 116 |  | 115 |  | 510 |  | 515 | 450 | 33 | | |  |  |  | М30 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  | |  | | |  |  |  |  |
|  |  | *PN* 63 | 370 | 372 |  |  | 294 | 301,9 | 54 |  | 52 | 124 |  | 140 | 18 | 530 | | | 460 | 39 |  | 36 | 16 | | | М36 | М33 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 100 | 400 | 400 |  |  | 284 | 298,9 | 70 |  | 68 | 184 |  | 170 |  | 585 | | | 500 | 45 |  | 42 |  |  |  | М42 | М39 |  |  |
|  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 160 |  |  | 279,5 | 78 | | | 189 |  | 175 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  | | |  |  |  |  |
|  |  | *PN* 1 |  | — |  | — |  | — | 20 |  | — | 49 |  | — |  |  |  | — |  | 22 | | — | 12 | | — | М20 | — |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 390 |  |  |  |  |  |  | 22 |  | 62 | 15 | 485 |  | 490 | 445 |  |  |  | 12 | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 6 |  | 385 |  |  |  | 341,4 | 22 |  | 54 |  |  |  |  |  | 22 | | | М20 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 | 400 |  |  |  | 351 |  | 26 | | | 64 |  | 68 | 16 | 500 |  | 505 | 460 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 350 | *PN* 16 |  | 390 | 382 | 355,6 |  | 339,6 | 32 |  | 30 | 74 |  | 82 |  | 520 | | | 470 | 26 | | |  |  |  | М24 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 | 406 | 398 |  |  |  |  | 40 |  | 38 | 89 |  | 100 |  | 550 |  | 555 | 490 | 33 | | | 16 | | | М30 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 | 418 | 408 |  |  |  | 338 | 52 |  | 46 | 120 |  | 125 | 20 | 570 |  | 580 | 510 | 33 |  | 36 |  |  |  | М30 | М33 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 430 | 420 |  |  | 342 | 330,6 | 60 |  | 56 | 144 |  | 150 | 595 |  | 600 | 525 | 39 | | |  |  |  | М36 | | **ГОСТ** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |  |
|  |  | *PN* 100 | 460 | 460 |  |  | 332 | 327,2 | 76 |  | 74 | 199 |  | 189 |  | 655 | | | 560 | 52 |  | 48 |  |  |  | М48 | М45 |  |  |
| 53 |  | *PN* 160 |  | — |  | — |  | — | 84 |  | — | 204 |  | — | 22,5 | 655 |  | — |  |  |  | — | 16 |  | — |  | — | **2015—33259** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| 54 |

*Продолжение таблицы 6*

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  | *d* | |  |  | *n* | | диаметр | |  |
| *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 20 |  | — | 49 |  | — |  |  |  | — |  | 22 |  | — | 16 | | — | М20 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 440 | 438 |  |  |  |  |  | 22 |  | 65 | 15 | 535 |  | 540 | 495 | 22 | | |  |  |  | М20 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  | 392,2 | 22 |  | 54 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  | |  |  |  | | |  |  |  |  | |  |
|  | *PN* 10 | 445 | 440 |  |  | 398 |  | 26 | | | 64 |  | 72 | 16 | 565 | | | 515 | 26 | | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 400 | *PN* 16 | 450 | 445 | 432 | 406,4 |  | 390,4 | 36 |  | 32 | 79 |  | 85 |  | 580 | | | 525 | 30 | | | 16 | | | М27 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 464 | 452 |  |  |  | 388,8 | 44 |  | 40 | 104 |  | 110 |  | 610 |  | 620 | 550 | 33 |  | 36 |  |  |  | М30 | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |
|  | *PN* 40 | 480 | 462 |  |  |  | 384,4 | 58 |  | 50 | 139 |  | 135 | 20 | 655 |  | 660 | 585 | 39 | | |  |  |  | М36 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 |  | 475 |  |  | 386 | 378 | 66 |  | 60 | 159 |  | 160 |  | 670 | | |  | 45 |  | 42 |  |  |  | М42 | М39 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 510 | \* |  |  | 376 | \* | 80 |  | \* | 204 |  | \* |  | 715 | | | 620 | 52 |  | 48 |  |  |  | М48 | М45 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 160 |  | — |  | — |  | — | 88 |  | — | 209 |  | — | 23,5 | 715 |  | — |  |  |  | — | 16 |  | — |  | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — | 20 |  | — |  |  | — |  |  |  | — |  | 22 |  | — | 16 | | — | М20 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 494 | 492 |  |  |  | 442,8 |  | 22 | 54 |  | 65 | 15 | 590 |  | 595 | 550 | 22 | | | 16 | | | М20 | |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  | 450 | 22 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 500 | 488 |  | 457 |  | 26 |  | 28 | 69 |  | 72 | 16 | 615 | | | 565 | 26 | | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 450 | *PN* 16 | 506 | 490 | 484 |  | 441 | 38 |  | 34 | 89 |  | 83 | 640 | | | 585 | 30 | | | 20 | | | М27 | |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 515 | 500 |  |  |  | 439,4 | 46 | | | 104 |  | 110 | 20 | 660 |  | 670 | 600 | 33 |  | 36 |  |  |  | М30 | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 530 |  |  |  | 448 | 432 | 60 |  | 57 | 139 |  | 135 |  | 680 |  | 685 | 610 | 39 | | |  |  |  | М36 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 534 | — |  | — | 436 | — | 68 |  | — | 159 |  | — | 28,5 | 695 |  | — |  | 45 |  | — | 16 |  | — | М42 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 100 | 560 |  | 426 | 82 |  | 204 |  | 27 | 740 |  | 645 | 52 |  |  | М48 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **ГОСТ 33259—2015** |

*Продолжение таблицы 6*

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | |  | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | |  | *n* | | диаметр | |  |
| *DN* |  |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 | | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  |  | — |  |  | — | 54 |  | — |  |  |  | — |  | 22 | | — |  |  | — | М20 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 545 | 538 |  |  |  |  |  | 23 |  | 24 |  | 68 | 15 | 640 |  | 645 | 600 |  | 22 | | 16 |  | М20 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  | 501 |  | 493,8 |  | 54 |  |  |  |  |  |  |  | 20 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 | 550 | 542 | 535 | 508 |  |  |  | 28 | | | 69 |  | 75 | 16 | 670 | | | 620 |  | 26 | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 500 | *PN* 16 | 559 | 548 |  |  |  |  | 492 | 42 |  | 36 | 94 |  | 84 |  | 710 |  | 715 | 650 |  | 33 | |  |  |  | М30 | |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  | |  | | |  |  |  |
|  | *PN* 25 | 570 | 558 |  |  | 500 |  | 488 | 48 | | | 104 |  | 125 | 20 | 730 | | | 660 | 39 |  | 36 | 20 | | | М36 | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 580 | 562 |  |  | 495 |  | 479,6 | 62 |  | 57 | 144 |  | 140 | 20 | \* | 755 | | | 670 | 45 |  | 42 |  |  |  | М42 | М39 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 594 | \* |  | \* | 485 |  | \* | 70 |  | \* | 169 |  | \* | 800 | | | 705 | 52 |  | 48 |  |  |  | М48 | М45 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  | |  |  |  |
|  | *PN* 100 | — | \* | — | 508 | — |  | \* | — |  | \* | — |  | \* | \* | — |  | 870 | 760 | — |  | 56 | — |  | 20 | — | М52 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  |  | — |  |  | — |  |  | — |  | 755 |  | — |  | 26 |  | — | 20 |  | — | М24 | — |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 650 | 640 |  |  |  |  | 595,8 | 24 |  | 30 | 60 |  | 70 | 16 | 755 | | | 705 |  | 26 | |  |  |  | М24 | |  |
|  |  |  |  | 602 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  | |  |  |  |  | |  |
| *DN* 600 | *PN* 10 |  | 642 | 636 | 610 |  |  | 594 | 29 |  | 30 | 70 |  | 82 | 18 | 780 | | | 725 |  | 30 | |  |  |  | М27 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 660 | 670 |  |  |  |  | 590 | 46 |  | 40 | 95 |  | 88 |  | 840 | | | 770 | 39 |  | 36 | 20 | | | М36 | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 670 | 660 |  |  | 600 |  | 588 | 54 |  | 48 | 120 |  | 125 | 20 | 840 |  | 845 |  |  | 39 | |  |  |  | М36 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 686 | 666 |  |  | 595 |  | 578 | 63 |  | 72 | 145 |  | 150 |  | 890 | | | 795 | 52 |  | 48 |  |  |  | М48 | М45 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 704 | \* |  | \* | 585 |  | \* | 76 |  | \* | 185 |  | \* | — | 925 |  | 930 | 820 |  | 56 | |  |  |  | М52 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| 55 | **2015—33259ГОСТ** |

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*Продолжение таблицы 6*

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | |  | *n* | | диаметр | |  |
| *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | —- |  | — |  |  | — |  |  | — |  | 860 |  | — |  | 26 |  | — | 24 |  | — | М24 | — |  |
|  |  | 740 |  |  |  |  |  | 24 |  |  | 60 |  |  | 16 |  |  |  | 810 |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 740 |  |  |  | 695 |  | 30 |  | 76 | 860 | | | 26 | | |  |  |  | М24 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  | 692 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 711 |  |  |  |  |  |  |  |  |  |  | | |  |  | | |  |  |  |  | |  |
| *DN* 700 | *PN* 10 | 744 | 746 | 726 |  | 693,4 | 30 |  | 35 | 70 |  | 85 | 18 | 895 | | | 840 | 30 | | |  |  |  | М27 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 | 750 | 755 |  |  |  | 691 | 48 |  | 40 | 100 |  | 104 |  | 910 | | |  | 39 |  | 36 | 24 | | | М36 | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | 766 | 760 |  |  | 690 | 682,6 | 58 |  | 50 | 130 |  | 129 | 20 | 960 | | | 875 | 45 |  | 42 |  |  |  | М42 | М39 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 | 790 | \* |  | \* | 695 | \* | 68 |  | \* | 165 |  | \* | 20 | \* | 995 | | | 900 | 52 |  | 48 |  |  |  | М48 | М45 |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |
|  | *PN* 63 | 820 | 685 | 81 |  | 230 |  | 1045 | | | 935 | 56 | | |  |  |  | М | 52 |  |
|  | *PN* 1 |  | — |  | — |  | — |  |  | — |  |  | — |  | 975 |  | — |  | 30 |  | — | 24 |  | — | М27 | — |  |
|  |  | 844 |  |  |  |  |  | 24 |  |  | 65 |  |  | 16 |  |  |  | 920 |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 842 |  |  |  | 797 |  | 30 |  | 76 | 975 | | | 30 | | |  |  |  | М27 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  | 792 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 813 |  |  |  |  |  |  |  |  |  |  |  | |  |  | | |  |  |  |  | |  |
| *DN* 800 | *PN* 10 | 850 | 850 | 826 |  | 795,4 | 32 |  | 38 | 80 |  | 96 | 18 | 1010 |  | 1015 | 950 | 33 | | |  |  |  | М30 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *PN* 16 | 855 |  |  | 788 | 50 |  | 41 | 100 |  | 108 | 20 | 1020 |  | 1025 | 39 | | | 24 | | | М36 | |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |
|  | *PN* 25 | 874 | 864 |  |  | 790 | 781 | 60 |  | 53 | 140 |  | 138 |  | 1075 |  | 1085 | 990 | 45 |  | 48 |  |  |  | М42 | М45 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 22 |  |  |  |  |  | |  |  |  |  |  |  |  |
|  | *PN* 40 | 908 | \* |  | \* | 795 | \* | 76 |  | \* | 195 |  | \* | 1135 |  | 1140 | 1030 | 56 | | |  |  |  | М | 52 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 920 | 785 | 90 |  | 230 |  |  | 1165 | | | 1050 | 62 | | |  |  |  | М56 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 |  | — |  | — |  | — |  |  | — |  |  | — |  | 1075 |  | — |  | 30 |  | — | 24 |  | — | М27 | — |  |
|  |  | 944 |  |  |  |  |  | 26 |  |  | 65 |  |  | 16 |  |  |  | 1020 |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 | 942 |  |  |  | 898 |  | 34 |  | 78 | 1075 | | | 30 | | | 24 | | | М27 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  |  |  | 892 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 900 | *PN* 10 | 950 | 950 | 926 | 914 |  | 889 | 34 |  | 38 | 85 |  | 99 | 20 | 1110 |  | 1115 | 1050 | 33 | | |  |  |  | М30 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  | |  |
| *PN* 16 | 958 | 955 |  |  | 52 |  | 48 | 115 |  | 118 | 1120 |  | 1125 | 39 | | |  |  |  | М36 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  | | 28 | | |  |  |  |
|  | *PN* 25 | 980 | 968 |  |  |  | 879 | 62 |  | 57 | 150 |  | 148 |  | 1185 | | | 1090 | 52 |  | 48 | М48 | М45 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 24 |  | | |  |  | |  |  |  |  |  |  |  |
|  | *PN* 40 | 1024 | \* |  | \* | 895 | \* | 79 |  | \* | 220 |  | \* | 1250 | | | 1140 | 56 | | |  |  |  | М | 52 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 63 | 1050 | 885 | 93 |  | 270 |  |  | 1285 | | | 1170 | 62 | | |  |  |  | М56 | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **ГОСТ 33259—2015** |

*Продолжение таблицы 6*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Размеры в миллиметрах | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |  |
|  |  | *PN*, | *D*m | | *D*n | | *d*1 | | *b* | |  | *H* | |  |  |  | *D* | |  |  | *d* | | *n* | |  | диаметр | |  |  |
|  | *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |  |
|  |  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 | | Ряд 2 | Ряд 1 | Ряд 2 | | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 |  | — |  | — |  | — |  |  | — |  |  | — |  | 1175 |  | — |  | 30 |  | — | 28 |  | — | М27 | — |  |  |
|  |  |  | 1044 |  |  |  |  |  | 26 |  |  | 65 |  |  | 16 |  | |  | 1120 |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 1045 |  |  |  | 1000 |  | 38 |  | 82 | 1175 | | |  | 30 | |  |  |  | М27 | |  |  |
|  |  | *PN* 6 |  |  |  | 992 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 1000 | *PN* 10 | 1050 | 1052 | 1028 | 1016 |  | 991 | 34 |  | 44 | 85 |  | 105 | 20 | 1220 |  | 1230 | 1160 | 33 |  | 36 |  |  |  | М30 | М33 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  | 28 | |  |  |  |  |  |
|  | *PN* 16 | 1060 | 1058 |  |  | 54 |  | 59 | 115 |  | 137 | 22 | 1255 | | | 1170 | 45 |  | 42 |  | М42 | М39 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 | 1084 | 1070 |  |  |  | 976 | 64 |  | 63 | 155 |  | 160 |  | 1315 |  | 1320 | 1210 |  | 56 | |  |  |  | М52 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 | 1140 | \* |  | \* | 995 | \* | 82 |  | \* | 240 |  | \* | 24 | 1360 | | | 1250 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 1160 | 985 | 97 |  | 285 |  |  | 1415 | | | 1290 |  | 70 | |  |  |  | М64 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 | 1244 | — |  | — |  | — |  |  | — | 70 |  | — | 16 | 1375 |  | — | 1320 | 30 |  | — | 32 |  | — | М27 | — |  |  |
|  |  |  |  |  |  |  |  | 28 |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 1245 |  |  |  | 1203 |  | 32 |  | 94 | 1375 | | |  |  | 30 | |  |  |  | М27 | |  |  |
|  |  |  |  |  |  |  | 1192 |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  | |  |  |
|  |  | *PN* 6 | 1248 | 1248 |  | 1219 | 1201,4 |  |  | 42 | 75 |  | 104 | 20 | 1400 |  | 1405 | 1340 |  | 33 | |  |  |  | М30 | |  |  |
|  | *DN* 1200 | *PN* 10 | 1256 | 1256 | 1228 |  | 1194 | 38 |  | 55 | 95 |  | 132 | 25 | 1455 | | | 1380 |  | 39 | |  |  |  | М36 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  | | 32 | |  |  |  |  |  |
|  | *PN* 16 | 1268 | 1262 |  |  | 1190,6 | 56 |  | 78 | 130 |  | 160 |  | 1485 | | | 1390 | 52 |  | 48 |  | М48 | М45 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 | 1288 |  |  |  | 1192 |  | 67 |  |  | 165 |  |  | 30 | 1525 |  | 1530 | 1420 |  | 56 | |  |  |  | М52 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 40 | 1350 | \* |  | \* | 1195 | \* | 85 |  | \* | 255 |  | \* | 1575 | | | 1460 |  | 62 | |  |  |  | М56 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 63 | 1386 |  | 1185 |  | 100 |  |  | 320 |  |  |  | 1665 | | | 1530 |  | 78 | |  |  |  | М72 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 1 | 1445 | — |  | — |  | — | 28 |  | — | 70 |  | — | 16 | 1575 |  | — | 1520 | 30 |  | — | 36 |  | — | М27 | — |  |  |
|  |  |  |  | 1428 |  | 1392 |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 | 1445 |  | 1406 |  | 38 |  | 96 | 1575 | | |  |  | 30 | | 36 | |  | М27 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **ГОСТ** |  |
|  |  | *PN* 6 | 1456 | 1452 |  |  |  | 1404,4 | 32 |  | 56 | 90 |  | 114 | 20 | 1620 |  | 1630 | 1560 | 33 |  | 36 |  |  |  | М30 | М33 |  |
|  | *DN* 1400 |  |  |  |  | 1422 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 |  | 1460 |  |  | 1393,6 |  |  | 65 |  |  | 143 | 25 |  |  | 1675 | 1590 |  |  | 42 |  |  |  |  | М39 | **33259** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 16 | — | 1465 | — |  | — | 1390 | — |  | 84 | — |  | 177 | 30 | — |  | 1685 | — |  | 48 | — |  | 36 | — | М45 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 25 | \* | \* |  | \* |  | \* | \* |  | 1755 | 1640 |  | 62 | М56 | **—** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **2015** |  |
| 57 |  | *PN* 40 |  |  | \* |  |  |  |  |  |  |  | 1795 | 1680 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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*Продолжение таблицы 6*

Размеры в миллиметрах

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |
|  | *PN*, | *D*m | | *D*n | | *d*1 | |  | *b* | |  | *H* | |  |  | *D* | |  |  | *d* | |  | *n* | | диаметр | |  |
| *DN* |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |
| кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |
|  |  | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 1 | 1616 | — |  | — |  | — | 28 |  | — | 70 |  | — |  | 1785 |  | — | 1730 | 30 |  | — |  |  |  | М27 | |  |
|  |  |  | 1628 |  | 1592 |  |  |  |  |  | 20 |  |  |  |  | 40 | | |  |
|  | *PN* 2,5 | 1645 |  | 1608,4 |  | 46 |  | 102 |  | 1790 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 | 1660 | 1655 |  | 1626 |  | 1606 | 37 |  | 63 | 100 |  | 119 |  | 1820 |  | 1830 | 1760 | 33 |  | 36 |  |  |  | М30 | М33 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 1600 | *PN* 10 |  | 1666 |  |  |  | 1594 |  |  | 75 |  |  | 159 | 25 |  |  | 1915 | 1820 |  |  | 48 |  |  |  |  | М45 |  |
|  | *PN* 16 | — | 1668 | — |  | — | 1591 | — |  | 102 | — |  | 204 | 35 | — |  | 1930 | — |  | 56 | — |  | 40 | — | М52 |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 | \* | 1626 | \* |  | \* |  | \* | \* |  | 1975 | 1860 |  | 62 | М56 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 40 |  |  | \* |  |  |  |  |  | 2025 | 1900 |  |  | 70 |  |  |  |  | М64 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  | 1845 |  |  |  | 1809 |  |  | 46 |  |  | 110 | 20 |  |  | 1990 | 1930 |  |  | 30 |  |  |  |  | М27 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  | 1855 |  | 1829 |  | 1807 |  |  | 69 |  |  | 133 |  |  | 2045 | 1970 |  |  | 39 |  |  |  |  | М36 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 1800 | *PN* 10 | — | 1868 | — | — | 1794 | — |  | 85 | — |  | 175 | 30 | — |  | 2115 | 2020 | — |  | 48 | — |  | 44 | — | М45 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  | 1870 |  |  |  | 1789 |  |  | 110 |  |  | 218 | 35 |  |  | 2130 |  |  | 56 |  |  |  |  | М52 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 |  | \* |  | 1829 |  | \* |  |  | \* |  |  | \* | \* |  |  | 2195 | 2070 |  |  | 70 |  |  |  |  | М64 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  | 2045 |  |  |  | 2010 |  |  | 50 |  |  | 122 | 22 |  |  | 2190 | 2130 |  |  | 30 |  |  |  |  | М27 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  | 2058 |  | 2032 |  | 2007 |  |  | 74 |  |  | 146 | 25 |  |  | 2265 | 2180 |  |  | 42 |  |  |  |  | М39 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 2000 | *PN* 10 | — | 2072 | — | — | 1997 | — |  | 90 | — |  | 186 | 30 | — |  | 2325 | 2230 | — |  | 48 | — |  | 48 | — | М45 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 16 |  | 2072 |  |  |  | 1988 |  |  | 124 |  |  | 238 | 40 |  |  | 2345 |  |  | 62 |  |  |  |  | М56 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 25 |  | \* |  | 2032 |  | \* |  |  | \* |  |  | \* | \* |  |  | 2425 | 2300 |  |  | 70 |  |  |  |  | М64 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  | 2248 |  |  |  | 2213 |  |  | 56 |  |  | 129 | 25 |  |  | 2405 | 2340 |  |  | 33 |  |  |  |  | М30 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 2200 | *PN* 6 | — | 2260 | — | 2235 | — | 2207 | — |  | 81 | — |  | 154 | — |  | 2475 | 2390 | — |  | 42 | — |  | 52 | — | М39 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 |  | 2275 |  |  |  | 2195 |  |  | 100 |  |  | 202 | 35 |  |  | 2550 | 2440 |  |  | 56 |  |  |  |  | М52 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 2,5 |  | 2448 |  |  |  | 2416 |  |  | 62 |  |  | 143 | 25 |  |  | 2605 | 2540 |  |  | 33 |  |  |  |  | М30 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | — |  |  |  |  |  |  |  |  |  |  |  |  |
| *DN* 2400 | *PN* 6 | — | 2462 | — | 2438 | — | 2408 | — |  | 87 | — |  | 168 |  | 2685 | 2600 | — |  | 42 | — |  | 56 | — | М39 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 10 |  | 2478 |  |  |  | 2393,6 |  |  | 110 |  |  | 218 | 35 |  |  | 2760 | 2650 |  |  | 56 |  |  |  |  | М52 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- |
| **ГОСТ 33259—2015** |

*Окончание таблицы 6*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Размеры в миллиметрах | | | | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Номинальный | |  |  |
|  |  | *PN*, |  | *D*m | |  | *D*n | | *d*1 | | *b* | |  |  | *H* | |  |  |  | *D* | |  |  | *d* | |  | *n* | | диаметр | |  |  |
|  | *DN* |  |  |  |  |  | *H*1 |  | *D*1 |  |  | болтов | |  |  |
|  | кгс/cм2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | или шпилек | |  |  |
|  |  |  |  | Ряд 1 | Ряд 2 | Ряд 1 | | Ряд 2 | Ряд 1 | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 |  |  | Ряд 1 |  | Ряд 2 |  | Ряд 1 |  | Ряд 2 | Ряд 1 |  | Ряд 2 | Ряд 1 | Ряд 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  | 2648 |  |  |  |  | 2598 |  |  | 64 |  |  | 148 |  | 25 |  |  | 2805 | 2740 |  |  | 33 |  |  |  |  | М30 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 2600 | *PN* 6 |  | — | 2665 | — |  | 2620 | — | 2588 | — |  | 91 | — |  | 175 |  | — |  | 2905 | 2810 | — |  | 48 | — |  | 60 | — | М45 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 |  |  | 2680 |  |  |  |  | 2570 |  |  | 110 |  |  | 224 |  | 40 |  |  | 2960 | 2850 |  |  | 56 |  |  |  |  | М52 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  | 2848 |  |  |  |  | 2798 |  |  | 74 |  |  | 161 |  | 25 |  |  | 3030 | 2960 |  |  | 36 |  |  |  |  | М33 |  |  |
|  | *DN* 2800 |  |  | — |  | — |  | 2820 | — |  | — |  |  | — |  |  |  |  | — |  |  |  | — |  |  | — |  | 64 | — |  |  |  |
|  | *PN* 6 |  | 2865 |  | 2786 |  | 101 |  | 188 |  | 30 |  | 3115 | 3020 |  | 48 |  | М45 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 |  |  | 2882 |  |  |  |  | 2770 |  |  | 124 |  |  | 244 |  | 40 |  |  | 3180 | 3070 |  |  | 56 |  |  |  |  | М52 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 2,5 |  |  | 3050 |  |  |  |  | 2998 |  |  | 80 |  |  | 170 |  | 25 |  |  | 3230 | 3160 |  |  | 36 |  |  |  |  | М33 |  |  |
|  | *DN* 3000 |  |  | — |  | — |  | 3020 | — |  | — |  |  | — |  |  |  |  | — |  |  |  | — |  |  | — |  | 68 | — |  |  |  |
|  | *PN* 6 |  | 3068 |  | 2980 |  | 102 |  | 192 |  | 30 |  | 3315 | 3220 |  | 48 |  | М45 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | *PN* 10 |  |  | 3085 |  |  |  |  | 2956 |  |  | 132 |  |  | 257 |  | 45 |  |  | 3405 | 3290 |  |  | 62 |  |  |  |  | М56 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 3200 | *PN* 2,5 |  | — | 3250 | — |  | 3220 | — | 3198 | — |  | 84 | — |  | 180 |  | 25 | — |  | 3430 | 3360 | — |  | 36 | — |  | 72 | — | М33 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  | 3272 |  | 3180 |  | 106 |  | 202 |  | 30 |  | 3525 | 3430 |  | 48 |  | М45 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 3400 | *PN* 2,5 |  | — | 3450 | — |  | 3420 | — | 3398 | — |  | 90 | — |  | 194 |  | 28 | — |  | 3630 | 3560 | — |  | 36 | — |  | 76 | — | М33 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  | 3475 |  | 3376 |  | 110 |  | 214 |  | 35 |  | 3735 | 3640 |  | 48 |  | М45 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 3600 | *PN* 2,5 |  | — | 3652 | — |  | 3620 | — | 3598 | — |  | 96 | — |  | 201 |  | 28 | — |  | 3840 | 3770 | — |  | 36 | — |  | 80 | — | М33 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *PN* 6 |  | 3678 |  | 3576 |  | 124 |  | 229 |  | 35 |  | 3970 | 3860 |  | 56 |  | М52 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 3800 | *PN* 2,5 |  | — | 3852 | — |  | 3820 | — | 3798 | — |  | 102 | — |  | 212 |  | 28 | — |  | 4045 | 3970 | — |  | 39 | — |  | 80 | — | М36 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *DN* 4000 | *PN* 2,5 |  | — | 4052 | — |  | 4020 | — | 3998 | — |  | 106 | — |  | 226 |  | 28 | — |  | 4245 | 4170 | — |  | 39 | — |  | 84 | — | М36 |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | \* Размеры задаются заказчиком. | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | П р и м е ч а н и я | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **ГОСТ** |  |
|  | 1 Ряд 2 соответствует [2]. | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 Допускается вместо размера *Н1* | | | | | | изготавливать с уклоном 1:2,5 от размера *Dm.* | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  | **33259** |  |
|  | 3 Фланцы должны изготавливаться с уплотнительными поверхностями исполнений: | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - А — для фланцев на *PN* 1*,* *PN* 2,5 и *PN* 6; | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **—** |  |
|  | - В — для фланцев на *PN* ≤ 100; | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 59 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **2015** |  |
| - C, D, E, F, J, K, L, M — для *PN* | | | | | | в соответствии с таблицей 2. | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |