TECHNICKÝ KATALOG
PP svěrné mechanické spojky a ventily
NÁVOD NA MONTÁŽ SVĚRNÝCH SPOJEK

ASSEMBLY INSTRUCTIONS

INSTRUCTIONS DE MONTAGE

POLYPROPYLENE COMPRESSION FITTINGS

RACCORDS EN POLYPROPYLÈNE A COMPRESSION

PP SVĚRNÉ SPOJKY

RACCORDS EN POLYPROPYLÈNE A CONNECTION POLYÉTHYLÈNE

NÁŘADÍ A NÁHRADNÍ DÍLY

ACCESSORIES AND SPARE PARTS

ACCESSOIRES ET PIÈCES DÉTACHÉS

POLYPROPYLENE VALVES FOR POLYETHYLENE CONNECTION

VANNES EN POLYPROPYLÈNE POUR CONNECTION POLYÉTHYLÈNE

ACCESSORIES AND SPARE PARTS

ACCESSOIRES ET PIÈCES DÉTACHÉS

PP PLASTOVÉ ŠROUBENÍ

RACCORDS FILETÉS EN POLYPROPYLÈNE

PROLYPROPYLENE THREADED FITTINGS

COLLERS DE PRISE EN POLYPROPYLÈNE

POLYPROPYLENE CLAMP SADDLES

CHEMICKÁ ODOLNOST

COPOLYMERE POLYPROPYLENE PPB CHEMICAL RESISTANCES

HOMOLOGATIONS

CERTIFIKÁTY

CERTIFICATIONS

HOMOLOGATIONS

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Edice 2014
1. Tvarovky STP

1.1 Oblasti použití
Nepropustnost a pevnost tvarovek je zaručena pro všechny typy potrubí, jak při nízkém, tak při největším pracovním tlaku v potrubí.
Sestavení tvarovek i jejich montáž je jednoduchá. Na konci montážního procesu se vyžaduje použití klíče, aby se zajistila těsnost a nepropustnost.

Tvarovky jsou vhodné pro potrubní spoje z polyetylenu o vysoké a nízké hustotě. Jmenovité průměry polyetylénových trubek jsou tyto:

<table>
<thead>
<tr>
<th>mm.</th>
<th>palce/inches W.Gas (ISO-7/ISO-228)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø16</td>
<td>$\frac{1}{2}$</td>
</tr>
<tr>
<td>Ø20</td>
<td>$\frac{1}{2}$</td>
</tr>
<tr>
<td>Ø25</td>
<td>$\frac{3}{4}$</td>
</tr>
<tr>
<td>Ø32</td>
<td>1</td>
</tr>
<tr>
<td>Ø40</td>
<td>$1\frac{1}{4}$</td>
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<tr>
<td>Ø50</td>
<td>$1\frac{1}{2}$</td>
</tr>
<tr>
<td>Ø63</td>
<td>2</td>
</tr>
<tr>
<td>Ø75</td>
<td>2 $\frac{1}{2}$</td>
</tr>
<tr>
<td>Ø90</td>
<td>3</td>
</tr>
<tr>
<td>Ø110</td>
<td>4</td>
</tr>
</tbody>
</table>

1.2 Součásti tvarovky.

1.2.1 Tělo: Tvoří podpůru a držák ostatních součástí. Určuje uspořádání ostatních prvků tvarovky (adapter, spojka, T-kus atd.). Je zde místo pro vložení těsnění a rozpěrného kroužku. Speciální lichoběžníkový závit podporuje

1.2.1 Body: It's a stand and clamp for the rest of the components. He determines the fitting configuration (Adapter, Coupling, Tee, etc.). Contains the o-ring and nut housing, which joins the body thanks to the special trapezoidal thread.

1.2.1 Corps: C’est le support central des autres éléments du raccord déterminant sa configuration (Manchon, Té, etc.). Contient l’emplacement pour le joint et l’écrou de serrage étudié pour supporter les efforts à la traction.

1. STP Fittings

1.1 Application fields.
The leaktightness and the resistance of the fittings are guaranteed into all types of pipelines, both under the low and maximum working pressure of the pipeline.
PLAST fittings are easy to assemble. Use of a wrench tool at the end of the assembling process is required in order to ensure tightness and leaktightness.

The fittings are suitable for high and low density polyethylene pipe joining. The polyethylene pipes nominal diameters sizes are as follows:

<table>
<thead>
<tr>
<th>IPS</th>
<th>závit/Thread NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5&quot;</td>
<td>0.5&quot;</td>
</tr>
<tr>
<td>0.75&quot;</td>
<td>0.75&quot;</td>
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<tr>
<td>0.75&quot;</td>
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<td>1&quot;</td>
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<tr>
<td>1.25&quot;</td>
<td>1.25&quot;</td>
</tr>
<tr>
<td>1.5&quot;</td>
<td>1.5&quot;</td>
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<tr>
<td>2&quot;</td>
<td>2&quot;</td>
</tr>
<tr>
<td>3&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>4&quot;</td>
<td>4&quot;</td>
</tr>
</tbody>
</table>

1.1.1 Domaine d’application.
L’étanchéité est garantie pour toutes les installations, qu’elles soient de basse ou haute pression.
Les raccords STP Plast sont faciles à installer. Une fois l’installation terminé il faut juste sécurisé le serrage et l’étanchéité avec une clé.

Les raccords fonctionnent avec les tuyaux de basse et haute densité. Les diamètres des tuyaux polyéthylène sont comme suit:

<table>
<thead>
<tr>
<th>CTS</th>
<th>závit/Thread NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5&quot;</td>
<td>0.5&quot;</td>
</tr>
<tr>
<td>0.75&quot;</td>
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<td>1.5&quot;</td>
<td>1.5&quot;</td>
</tr>
<tr>
<td>2&quot;</td>
<td>2&quot;</td>
</tr>
</tbody>
</table>

1.2 Fitting components.

1.2.1 Corps: C’est le support central des autres éléments du raccord déterminant sa configuration (Manchon, Té, etc.). Contient l’emplacement pour le joint et l’écrou de serrage étudié pour supporter les efforts à la traction.

La nomenclature des diamètres nominaux marqués sur les tuyaux polyéthylène, en accord avec les diamètres extérieur réel des tuyaux, est la référence pour les différentes installations de raccords, vannes, etc.

1.2 Composants du raccord.

1.2.1 Corps: C’est le support central des autres éléments du raccord déterminant sa configuration (Manchon, Té, etc.). Contient l’emplacement pour le joint et l’écrou de serrage étudié pour supporter les efforts à la traction.

La nomenclature des diamètres nominaux marqués sur les tuyaux polyéthylène, en accord avec les diamètres extérieur réel des tuyaux, est la référence pour les différentes installations de raccords, vannes, etc.

1.2.2 O-Kroužek: Tento prvek zajišťuje nepropustnost soustavy jak při nízkém tlaku, tak i když je tvarovka podrobená vysokému tlaku v potrubí.

1.2.3 Rozpěrný kroužek: Je důležitý pro přizpůsobení O-kroužku proti potrubí pro zajištění nepropustností; ta se do sahne díky tlaku vytvořenému závitovou matricí na tělo.

1.2.4 Svérný kroužek: Kónický kroužek se zuby pro uchycení trubky a zabránění vytržení tvarovky působeným tlakem v potrubí.

1.2.5 Matice: Jedná se o prvek, který uzavírá soustavu všech ostatních prvků. Zajišťuje přizpůsobení O-kroužku pomocí rozpěrného kroužku, a drží svěrný kroužek ve správné poloze.

1.3 Dodávka a značení tvarek.

Tvarovky se dodávají zabalené do papírových krabic s niže uvedeným informačním štítkem:

He supports the pull-out forces.

The outlet thread helps to join the valves, shut-off cocks an others fittings available on the market. Thread type: Withworth Gas/BSP (ISO-7/ISO-228). (Available in NPT under request)

1.2.2 O-ring: This element ensures the leaktightness of the set, both under the low pressure and when the fitting is working under the maximum pipeline pressure.

1.2.3 Compression ring: Is responsible of o-ring adjustment against the pipe to ensure the leaktightness: achieved thanks to the pressure transmitted from the threaded nut to the body.

1.2.4 Grip ring: conical ring teeth inside for clamp the pipe and avoid the pull-out of the fitting because of the pipeline pressure.

1.2.5 Nut: It’s the element, which closes the kit of all components. He adjusts the o-ring, through the compression ring and retains the grip ring.

1.3 Supply and identification of the fittings.

PLAST fittings are supplied packed into the carton boxes with label information as below:

Les filetages et taraudages sont de standards internationales Withworth Gas/BSP (ISO-7/ISO-228). (en NPT disponible sous demande)

1.2.2 O-ring: C’est l’élément qui assure l’étanchéité du raccord à basse ou haute pression.

1.2.3 Bague de compression: responsable d’ajuster et de comprimer le joint pour assurer l’étanchéité. La compression se fait par le serrage de l’écrou. (étanchéité mécanique).

1.2.4 Bague de crantage: bague conique et dentée qui, fixant le tube évite tout arrachement du tuyau.

1.2.5 Écrou de serrage: élément qui fixe l’ensemble de tous les composants ajustant les le joint, la bague de crantage et de compression.

1.3 Approvisionnement et identification des raccords.

Les raccords STP Plast sont emballés dans des cartons avec l’étiquetage suivant:

Tvarovky jsou opatřeny nezmazatelnou značkou s uvedením PLAST, použitího materiálu (PP-B), jmenovitého průměru (v mm nebo palicích), jmenovitého tlaku a příslušné normy ISO.

Na těchto tvarovek je nesmazatelná značka udávající: použitý materiál (PP-B).

Bodies of the fittings carry the indelible mark of: used row material (PP-B), nom-
1.4 Montážní pokyny.

Tvarovky se sestavují rychle a snadno; použití speciálních nástrojů je nezbytné. Pro montáž se doporučuje použít článkový montážní klíč.

STP má svou vlastní řadu montážních klíčů navržených speciálně pro tyto tvarovky.

1.4 Fittings assembly instructions.

PLAST fittings assembly is fast and easy; use of any special tools is necessary. Anyway, is recommended use of an articulated hook wrench, pretty often employed by installers.

STP has his own range of the hook wrenches, designed especially for ours fittings.

1.4 Instructions d’assemblage des raccords.

L’installation des raccords STP Plast est rapide et facile. Seule une clé est recommandée pour finir l’installation.

STP dispose d’une gamme de clés de serrage étudiée pour nos raccords et pour tous les diamètres.

2. Montáž tvarovek pro potrubí od Ø16 do Ø32

Montáž tvarovek (PP svárené spojky) o malých průměrech o od Ø16 do Ø32, se provádí takto:

1) Změřte vzdálenost od vnitřní hraně těla tvarovky po vrchol úplně dotažené matici
Na trubku poznámenejte vzdálenost.

2. Fittings assembly for pipes from Ø16 up to Ø32

The assembly of the small diameters fittings PLAST, sizes from Ø16 to Ø32, paying attention to the characteristic “push-fitting” system, should be provided as follows:

1) Measure the length from the internal stop of the fitting body to the nut top completely threaded.
Mark the length on the pipe.

2. L’assemblage des raccords pour tuyaux de Ø16 à Ø32

Les raccords de 16 à 32mm sont “push-fitting” comme suivant :

1) Mesurer depuis la butée du corps jusqu’à l’extrémité de l’écrou serré. Marquer le tuyau.
2) Uvolněte (odšroubujte) matici přibližně o 2 celé otáčky a zasuňte trubku po značku.
Pro 100% dokonale těsné spojení (pro všechny průměry d.16 - d.110) doporučujeme použít plastová opěrná pouzdra.

3) Utáhněte (zašroubujte) ručně matici.
Pomocí dvou klíčů zajistěte dokonalou těsnost tvarovky (zahybením matice a jejího těla).

2) Release (unscrew) the nut near 2 full turns and insert the pipe till marked on it sign, enters into the nut. For 100% perfect tight connection (for all diameters D.16 - D.110) we recommend using plastic supporting sleeve.

3) Tighten (screw) the nut with a hand.
Using two wrenches ensure full tightness of the fitting (clamping the nut and the body).

3) Visser l’écrou à la main et assurer l’installation en utilisant deux clés à serrage comme ci-dessous :

3. Montáž tvarovek na potrubí od Ø40 do Ø63

1) Změřte vzdálenost od vnitřní hrany těla tvarovky po vrchol úplně dotažené matici
Na trubku poznamenejte vzdálenost.

3. Fittings assembly for pipes from Ø40 to Ø63

1) Measure the length from the internal stop of the fitting body to the nut top completely threaded (using an appropriate tool).

3. L’assemblage des raccords pour tuyaux de Ø40 à Ø63
1) Mesurer depuis la butée du corps jusqu’à l’extrémité de l’écrou serré. Marquer le tuyau.
2) Na konci trubky kde dochází ke styku s trubkou zkostě hranu trubky. Pro 100% dokonale těsné spojení (pro všechny průměry d.16 - d.110) doporučujeme použít plastová opěrná pouzdra.

2) Make the bevel at the end of the pipe where introducing the fitting. Mark the length on the pipe. For 100% perfect tight connection (for all diameters D.16 - D.110) we recommend using plastic supporting sleeve.

2) Chanfreiner l’extrémité du tuyau avant de l’introduire dans le tuyau. Pour 100% connexion parfaitement étanche (pour tous les diamètres D.16 - P110), nous recommandons l’utilisation de plastique douille de retenue.

3) Uvolněte (odšroubujte) matici přibližně o 2 celé otáčky a zasuňte trubku po značku.
4) Uťahněte (zašroubujte) ručně matici. Pomocí dvou klíčů zajistěte dokonalou těsnost tvarovky (zachycení matici a jejího těla).

3) Release (unscrew) the nut near 2 full turns and place the pipe till marked on it sign, enters into the nut.
4) Tighten (screw) the nut with a hand. Using two wrenches ensure full tightness of the fitting (clamping the nut and the body).

3) Desserrer 2 tours l’écrou et insérer le tuyau jusqu’à que le marquage sur le tuyau passe l’écrou.
4) Visser l’écrou à la main et assurer l’installation en utilisant deux clés à serrage comme ci-dessous :

4. Montáž tvarovek na potrubí od Ø75 do Ø110

1) Úplně rozmontujte tvarovku na všechny součásti (viz. Obrázek níže).
2) Odstraňte všechny otřesy, které by mohly poškodit povrchy a do tvarovky vložte matici, rozpěrný kroužek a O-kroužek. Pro 100% dokonale těsné spojení (pro všechny průměry d.16 - d.110)

4. Fittings assembly for pipes from Ø75 to Ø110

1) Disassemble the fitting separating all his components.
2) Clean all burrs of the pipe that can be stucked onto and place the nut, the compression ring and o-ring inside the fitting. For 100% perfect tight connection (for all diameters D.16 - D.110) we recommend using plastic supporting sleeve.

5. L’assemblage des raccords pour tuyaux de Ø75 à Ø110

1) Démontez les composants du raccord
2) Nettoyer et charfreiner le tuyau et installer sur le tube respectivement l’écrou, bague de crantage, bague de compression et joint. Pour 100% connexion parfaitement étanche (pour tous les diamètres D.16 -
3) Zasuňte trubku až po vnitřní hranu těla trubky. Co možná nejvíce přibližte zasuňte (k tělu) O-kroužek a rozpružte kroužek. Zašroubujte matice o několik otáček pomocí 2 klíčů (zachycením matice a jejího těla).
4) Znovu odšroubujte matici a vložte svrchní kroužek. Při vkládání se ujistěte, že je tak blízko k rozpruženému kroužku, jak je to možné. Znova zašroubujte matici pomocí 2 klíčů.

5. Montáž univerzálních tvarovek
5.1 Průměry univerzálních tvarovek.

<table>
<thead>
<tr>
<th>mm</th>
<th>palce/inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø15-22</td>
<td>3/8&quot;, a ½&quot;</td>
</tr>
<tr>
<td>Ø21-27</td>
<td>½&quot;, a ¾&quot;</td>
</tr>
<tr>
<td>Ø27-35</td>
<td>¾&quot;, a 1&quot;</td>
</tr>
<tr>
<td>Ø35-50</td>
<td>1 ¼&quot;, a 1 ½&quot;</td>
</tr>
</tbody>
</table>

Tyto tvarovky spojují trubky ze všech typů materiálů (polyéthylénou o vysoké a nízké hustotě, mědi, pokověné oceli, olova, pvc apod.)

3) Insert the pipe until the internal stop of the fitting body. Bring closer (to the body) the o-ring and the compression ring, as much as possible. Screw the nut using 2 wrenches (one for the body and one for the nut).
4) Unthread the nut and remove it towards the pipe. Placing the grip ring be sure that he’s as close as possible to the compression ring. Again, screw the nut with 2 wrenches.

3) Insérer le tuyau jusqu'à la butée, avancer le joint et bague de compression au maximum jusqu’au corps et serrer avec les deux clés.
4) Desserrer l’écrou et placer la bague de crantage sur le tuyau et appuyée sur la bague de compression. Serrer l’ensemble avec deux clés.

5. Universal fittings assembly
5.1 The diameters of universal fittings.

6. Installation Raccords Universels
5.1 Moyennes raccords universels.

These fittings are useful for joining the high and low density polyethylene pipes, cooper, galvanized steel, lead, pvc, etc.

Les raccords universels sont utilisés pour installer des tuyaux polyéthylène de basse à haute densité, cuivres, galva, plomb, pvc, etc.
5.2 Způsob montáže.

1) Uvolněte (odšroubujte) matici o cca 2 celé otáčky a zasuňte trubku přes těsnici kroužek, svrchní kroužek a gumu až na její dno. NEPŮSOBTE SILOU NA ZARÁŽKY.
2) Dotahujte matici pomocí 2 klíčů dokud použitá síla nebudou příliš velká.
Vzhledem k tomu, že se spojují trubky různých materiálů, nelze přesně definovat jaké je maximální dotažení maticí.
3) Snažte se aby osa trubky byla po utažení rovnoměrná s osou téla tvarovky.

5.2 Assembly method.

1) Release (unscrew) the nut near 2 full turns and insert the pipe through the compression ring, grip ring and the rubber to the bottom of itself. DO NOT FORCE THE RUBBER BOTTOM.
2) Screw the nut using two wrenches, clamping the nut and the body, till the employed force will be substantial. Considering that the measures are variable, there's no definitive end of screwing.
3) Attempt to leave the pipe completely straight respect the body.

5.2 Installation.

1) Desserrer l'écrou 2 tours et insérer le tube à travers la bague de crantage et de compression jusqu’au joint. NE PAS PASSER LE JOINT.
2) Serrer l’écrou au maximum avec les deux clés (l'une sur le corps et l'autre sur l’écrou).
3) Le tube doit rester droit dans le corps du raccord.

Poznámka: při každé instalaci se před zavedením konečného pracovního tlaku doporučuje zavést zkoušební tlak (např. 0,5 Mpa) do potrubí, zrušit a znovu spoj utáhnout.

Note: is recommended, as for any installation, apply a dummy pressure (for example: 5 Bars) into the pipeline, abort and tighten again, before employing the final working pressure.

Note : il est recommandé de mettre en pression un 1ere fois à 5 bars, l’enlever, et resserrer avant de mettre en pression normale.
6. Doplňující informace

6.1 Oblasti použití.
Určeno pro systémy s pitnou vodou, jakékoli závěsné systémy, kanalizace, pro systémy užívané v potravinářském průmyslu; pro průmyslová zařízení - doprava kapalin na bázi kyselin, solí apod.

6.2 Použité materiály.

6.3 Pracovní podmínky.
Maximální teplota: 80°C / 176°F
Pracovní tlak:
- 16 Atm při 20°C / 235 PSI až do Φ 63
- 10 Atm při 20°C / 147 PSI až do Φ 75

6.4 Bez toxicity.
Materiály jsou plně v souladu s mezinárodní specifikací vztahující se k hygieně a jejím požadavkům pro přepravu pitné vody a jiných kapalin v potravinářském průmyslu.

** Všechny tvarovky s vnitřním závitem jsou vyzděny kovovým kroužek z nerezové oceli.

6.5 Balení.
### PP SVĚRNÉ SPOJKY
PP Compression fittings
Raccord PP a compression

#### SPOJKA PŘÍMA
**COUPLING**

#### OPRAVNÁ SPOJKA
**SLIP COUPLING**
**MANCHON DE RÉPARATION**

#### SPOJKA REDUKOVANÁ
**REDUCING COUPLING**
**MANCHON RÉDUCT**

#### PŘECHOD VNITŘNÍ ZÁVIT
**FEMALE ADAPTER**
**RACCORD FEMELLE**

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**End cap bouchon**

### Koleno 90°
**90° elbow coude 90° égal**

### Koleno 90° závit vnější
**90° elbow male thread coude mâle 90°**
### T-KUS 90° ZÁVIT VNĚJSÍ
90° TE Threaded Offset Take Te A Fitting Central

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### NÁSTĚNKA
Wall Support Applique Murale

### T-KUS 90° REDUKOVANÝ
90° Reducing Tee Té Reduit

**VÁHA**

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### T-KUS 90° S DVOJITÝM ZÁVITEM
90° Tee Double Female Offset Take Te A Double Téredéda

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### PŘÍRUBOVÁ SPOJKA
Flange Adapter Raccord A Bridge

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**Svěrný ventil PE-PE**

**PE-compression**

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### Zpětné klapky PE-PE

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#### Objem

### Zpětné klapky PE-PP/PVC Vnitřní závit

#### Valvula anti retorno PE-PP/PVC Rosca Hembra Vanne Anti-retour PE-PP/PVC FEMELLE À VISSE}

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#### Objem

### Zpětné klapky PE-PP/PVC Vnější závit

#### Valvula anti retorno PE-PP/PVC Rosca Macho Vanne Anti-retour PE-PP/PVC MALE À VISSE
ZPĚTNÉ KLAPEK PE-PE PN10
Válvulas de Compresión Anti-retorno PN10
Vannes à Compression Anti-retour PN10

ZPĚTNÁ KLAPEK PE-PP/PVC VNÍTRNÍ ZÁVIT
VALVULA ANTI RETORNO UNIBLOCK PE-PP/PVC ROSCA HEMBRA
VANNE ANTI-RETOUR UNIBLOCk PE-PP/PVC FEMELLE À VISSEr

ZPĚTNÁ KLAPEK PE-PP/PVC VNĚJSÍ ZÁVIT
VALVULA ANTI RETORNO UNIBLOCK PE-PP/PVC ROSCA MACHO
VANNE ANTI-RETOUR UNIBLOCk PE-PP/PVC MALE À VISSEr

SLOŽENÍ - SVĚRNÉ VENTILY
CARACTERÍSTICAS VALVULAS DE COMPRESIÓN
CARACTERISTIQUES VANNES À COMPRESSION

PROVOZNÍ PODMÍNKY
Jmenovitý tlak: 16 Atm

CONDICIONES DE TRABAJO
Presión nominal: 16 Atm

CONDICIONS DE TRAVAIL
Presion nominale: 16 Atm

SLOŽENÍ - ZPĚTNÉ KLAPEKY
CARACTERÍSTICAS VALVULAS DE COMPRESSION ANTI-RETORNO
CARACTERISTIQUES VANNES À COMPRESSION ANTI-RETOUR

PROVOZNÍ PODMÍNKY
Jmenovitý tlak: 10 Atm

Minimální pracovní tlak: 0.5-0.8 Bar
Presión minima de trabajo: 0.5-0.8 Bar

Povinné tlak: 10 Atm
Pression minimale de fonctionnement: 0.5-0.8 Bar

STANDARD
STANDARD
STANDARD
MALÝ A VEĽKÝ MONTÁŽNÍ KLÍČ
SMALL AND BIG WRENCH
CLE PETITE ET GANDE

KÓD | DN | VAHA | OBJEM
--- | --- | --- | ---
776001 | 16-20 | 50 | 0,34 | 0,019
776002 | 40-60 | 50 | 0,33

OBOUSTRANNÝ MONTÁŽNÍ KLÍČ
DOUBLE WRENCH
CLE DOUBLE

KÓD | DN | VAHA | OBJEM
--- | --- | --- | ---
776003 | 16-40 | 50 | 0,11 | 0,019

KOVOVÝ MONTÁŽNÍ KLÍČ
METALIC WRENCH
clé métallique

KÓD | DN | VAHA | OBJEM
--- | --- | --- | ---
776004 | 40-60 | 50 | 0,11 | 0,019
776005 | 75-110 | 50 | 1,15

O-KROUŽEK
O-RING JOINT

KÓD | DN
--- | ---
001116 | 16
001130 | 25
001135 | 32
001140 | 40
001150 | 50
001163 | 63
001175 | 75
001190 | 90
0011110 | 110

SVĚRNÝ KROUŽEK
GRIP RING
BAGUE DE CRANTAGE

KÓD | DN
--- | ---
000516 | 16
000525 | 25
000532 | 32
000540 | 40
000550 | 50
000563 | 63
000575 | 75
000590 | 90
00051110 | 110

ROZPĚRNÝ KROUŽEK
COMPRESSION RING
BAGUE DE COMPRESSION

KÓD | DN
--- | ---
000416 | 16
000420 | 20
000431 | 31
000432 | 32
000440 | 40
000450 | 50
000463 | 63
000475 | 75
000490 | 90
00041110 | 110

PŘEVLEČNÁ MATKA
COMPRESSION NUT
ÉCROU DE SERRAGE

KÓD | KÓD | DN
--- | --- | ---
0002105G3 | 0002120A | 16/20
0002255G3 | 00022162 | 25
0002325G3 | 00023262 | 32
0002365G3 | 00023662 | 40
0002365G3 | 00023662 | 50
0002365G3 | 00023662 | 63
0002375G3 | 00023762 | 75
0002390G3 | 00023962 | 90
00023111G3 | 00031162 | 110

PLASTOVÉ OPĚRNÉ POUZDRO
PIPE LINER
RENORT INTERIEUR

KÓD | DN | VAHA | OBJEM
--- | --- | --- | ---
780020 | 20 | 400 | 4,60 | 0,037
780025 | 25 | 400 | 7,10
780032 | 32 | 400 | 10,70
780040 | 40 | 400 | 14,31
780050 | 50 | 300 | 11,01 | 0,074
780063 | 63 | 172 | 12,52

CPVC SVĚRNÝ KROUŽEK
CPVC GRIP RING
BAGUE DE CRANTAGE CPVC

KÓD | DN | MĚĎ Ø | BAL | VAHA | OBSEM
--- | --- | --- | --- | --- | ---
7152250C1 | 1/2" | 12,7mm | 40 | 2 | 0,019
7152250C3 | 3/4" | 19mm | 40 | 2

PVC SVĚRNÝ KROUŽEK
GRIP RING FOR PVC PIPES
BAGUE DE CRANTAGE POUR TUBES PVC

KÓD | DN | PVC Ø
--- | --- | ---
000125PVCN | 25
000132PVCN | 32
000140PVCN | 40
000150PVCN | 50
000160PVCN | 63
000175PVCN | 75
000190PVCN | 90
0001110PVCN | 110

PRÉCHODOVÁ SPOJKA CU,FE,PVC
TRANSITION RUBBER CU,FE,PVC
JOINT DE TRANSITION CU,FE,PVC

KÓD | DN | Ø (mm)
--- | --- | ---
000715 | 15/16 (15/2")
000721 | 31/32 (3/4")

0N10 (without pull-out)

VÍCEVrstvá VLOŽKA
MULTILAYER INSERT
MULTICOUCHE

KÓD | DN
--- | ---
777116 | 16
777120 | 20
777125 | 25
777132 | 32

GUMOVÁVL OŽKA
MULTILAYER RUBBER JOINT
MULTICOUCHE

KÓD | DN
--- | ---
0007716 | 16
0007720 | 20

ADAPTOR KIT NA MĚĎ PN16
KIT ADAPTADOR CORRÉ PN16
KIT ADAPTEUR CUIVRE PN16

KÓD | DN | MĚĎ Ø | BAL | VAHA | OBJEM
--- | --- | --- | --- | --- | ---
7152250C1 | 1/2" | 12,7mm | 40 | 2 | 0,019
7152250C3 | 3/4" | 19mm | 40 | 2

NÁŘADÍ A NÁHRADNÍ DÍLY
Accessories and spare parts
Accessoires et pièces détachés
<table>
<thead>
<tr>
<th>Kód</th>
<th>Rozměr</th>
<th>Bal</th>
<th>Váha</th>
<th>Objem</th>
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<thead>
<tr>
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<th>Váha</th>
<th>Objem</th>
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<tr>
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<table>
<thead>
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<td>0,004</td>
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<table>
<thead>
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<th>Váha</th>
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<td>1,74</td>
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<td>0,013</td>
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<td>1,15</td>
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<table>
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<th>Kód</th>
<th>Rozměr</th>
<th>Bal</th>
<th>Váha</th>
<th>Objem</th>
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<td>0,008</td>
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<td>5&quot;x1/2&quot;</td>
<td>5</td>
<td>0,008</td>
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</table>

Materials / Matériaux: polypropylene / polypropylene / polypropylene
Rosco BSP o NPT/Threads / Filetage: UNI ISO 7/1, UNI ISO 228/7, UNI EN 10226-1
### REDUKCE DLOUHÁ M-F
MALE-FEMALE REDUCER
REDUCTION MALE-FEMALE

<table>
<thead>
<tr>
<th>KÓD</th>
<th>Rozměr</th>
<th>Bal/</th>
<th>VÁHA OBJEM 3 PAG.</th>
<th>OBJEM 3 PAG.</th>
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<td>1.00</td>
<td>0.005</td>
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<td>756004</td>
<td>1’’X3/4’’</td>
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<td>1.00</td>
<td>0.005</td>
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<td>0.008</td>
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<td>756006</td>
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<td>0.94</td>
<td>0.011</td>
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<td>2’’X1’’</td>
<td>10</td>
<td>0.68</td>
<td>0.004</td>
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</table>

### REDUKCE KRÁTKÁ
REDUCING BUSH
ÉCROU REDUCTION

### KOLENO 90° M-F ZÁVITOVÉ
90° BEND MALE-FEMALE COURBE
90° MALE-FEMALE

### T-KUS ZÁVITOVÝ
EQUAL FEMALE TEE TÉ
ÉGAL FEMELLE

### REDUKCE DLOUHÁ F-M
BUSH FEMALE-MALE
ECROU REDUCTION FEMELLE-MALE

### KOLENO 90° M-M ZÁVITOVÉ
90° BEND FEMALE COURBE 90°
FEMELLE
**PP NAVRTÁVACÍ OBJÍMKY**

PP clamp saddles
Colliers de prise en PP

---

**BEZ výztužného kroužku**

- **Body** / Corps: polypropylene / polypropylène / polypropylene -
- **Gasket** / Joint: NR

**S výztužným kroužkem**

- **Body** / Corps: polypropylene / polypropylène / polypropylene -
- **Gasket** / Joint: Reinforced

---

**Materiály / Materials / Matériaux:**
- **Body** / Corps: polypropylene / polypropylène / polypropylene -
- **Gasket** / Joint: NR
- **Bolts** / Vis: carbon steel / acier carboné -
- **Reinforcing ring** / Bague de renforcement: INOX AISI 304
- **Threads** / filetage: BSP x NPT

**Pracovní podmínky / Working conditions / Conditions de travail:**
- **Max. tišť / Pressure / pression max: s reforza / sans renfort / 10 bar**
- **Max. teplota / Max. temperature / température max: 90°C**

**Normy navrtávacích objímek / The clamp saddles conform norms / Les colliers de prise son conformes aux normes:**
UNI EN ISO 1344, UNI EN 1022/1, ANSI/ASME B1.20.1
| KOD BEZ Kroužku | KOD S Kroužkem | Dn | R | dN | L2 | L1 | T1 | T2 | F | TYPE | OR | VAHA bez KOV. | VAHA s KOV. | OBJEM | M < 10 | 0.016 | 0.026 | 0.036 | 0.096 | 0.186 | 0.236 |
|----------------|----------------|-----|---|----|-----|-----|-----|-----|---|------|----|----------------|-------------|--------|---------|---------|---------|---------|---------|
| 202020 | 212020 | 20 | 1/2" | 1 | 13 | 80.5 | 50 | 61 | 19.5 | 2 | a3 | 15,40x2,33 | 158/275 | 8.38 | 11,55 | 0.016 |
| 202520 | 212520 | 25 | 3/4" | 1 | 12 | 85.5 | 50 | 61 | 19.5 | 2 | a3 | 15,40x2,33 | 158/275 | 11.82 | 11,79 | 0.016 |
| 203220 | 213220 | 32 | 1 1/4" | 1,5 | 65 | 84.5 | 50 | 61 | 19.5 | 2 | a3 | 21,80x2,33 | 190/300 | 11.74 | 11,70 | 0.016 |
| 203820 | 213820 | 38 | 1 1/2" | 2 | 58 | 84.5 | 50 | 61 | 19.5 | 2 | a3 | 21,80x2,33 | 190/300 | 11.74 | 11,70 | 0.016 |
| 204322 | 214322 | 42 | 2" | 1,5 | 65 | 84.5 | 50 | 61 | 19.5 | 2 | a3 | 21,80x2,33 | 190/300 | 11.74 | 11,70 | 0.016 |
| 204820 | 214820 | 48 | 2 1/4" | 2,5 | 48 | 72.5 | 50 | 61 | 19.5 | 2 | a3 | 27,10x2,33 | 235/375 | 10.53 | 10,50 | 0.026 |
| 205320 | 215320 | 53 | 2 1/2" | 3 | 42 | 60.5 | 50 | 61 | 19.5 | 2 | a3 | 27,10x2,33 | 235/375 | 10.53 | 10,50 | 0.026 |
| 205820 | 215820 | 58 | 3" | 1 | 65 | 50.5 | 50 | 61 | 19.5 | 2 | a3 | 37,90x2,33 | 350 | 7.88 | 7.70 | 0.036 |
| 206320 | 216320 | 63 | 3 1/2" | 1 | 65 | 50.5 | 50 | 61 | 19.5 | 2 | a3 | 37,90x2,33 | 350 | 7.88 | 7.70 | 0.036 |
| 205030 | 215030 | 50 | 1 1/4" | 1 | 15 | 90 | 60 | 81 | 18 | 2 | a3 | 37,90x2,33 | 350 | 0.81 | 0.79 | 0.026 |
| 205030 | 215030 | 50 | 1 1/4" | 1 | 25 | 90 | 60 | 81 | 18 | 2 | a3 | 37,90x2,33 | 350 | 0.81 | 0.79 | 0.026 |
| 205040 | 215040 | 50 | 1 1/4" | 1 | 35 | 90 | 60 | 81 | 18 | 2 | a3 | 37,90x2,33 | 350 | 0.81 | 0.79 | 0.026 |
| 205040 | 215040 | 50 | 1 1/4" | 1 | 45 | 90 | 60 | 81 | 18 | 2 | a3 | 37,90x2,33 | 350 | 0.81 | 0.79 | 0.026 |
| 205040 | 215040 | 50 | 1 1/4" | 1 | 55 | 90 | 60 | 81 | 18 | 2 | a3 | 37,90x2,33 | 350 | 0.81 | 0.79 | 0.026 |
| 205040 | 215040 | 50 | 1 1/4" | 1 | 65 | 90 | 60 | 81 | 18 | 2 | a3 | 37,90x2,33 | 350 | 0.81 | 0.79 | 0.026 |

**Collarines CON / SIN REFUERZO**

**Navštívací obšerky s výztužným**

**Collarines sans / AVEC REFORTE**

**PP NAVRTÁVACÍ OBJÍMKY**

**PP champ saddles Colliers de prise en PP**
<table>
<thead>
<tr>
<th>Substance</th>
<th>Koncentrace</th>
</tr>
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<tbody>
<tr>
<td>A</td>
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</tr>
<tr>
<td>Acetaldehyde</td>
<td>tech. grade /</td>
</tr>
<tr>
<td>Acetaldehyde, aqueous</td>
<td>any + +</td>
</tr>
<tr>
<td>Aixmapidě</td>
<td>any + +</td>
</tr>
<tr>
<td>Aromatic acid (glycol)</td>
<td>100% + /D -</td>
</tr>
<tr>
<td>Aromatic acid, aqueous</td>
<td>70% + +</td>
</tr>
<tr>
<td>Aromatic anhydride tech. Grade</td>
<td>tech. grade + /D -</td>
</tr>
<tr>
<td>Azeotechn</td>
<td>100% + (+)</td>
</tr>
<tr>
<td>Azofenone</td>
<td>+ /</td>
</tr>
<tr>
<td>Acids, aromatic</td>
<td>+ +</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>tech. grade +</td>
</tr>
<tr>
<td>Adipic acid, aqueous</td>
<td>saturated + +</td>
</tr>
<tr>
<td>Argon</td>
<td>tech. grade + + + (B)</td>
</tr>
<tr>
<td>Alcohol (drinking)</td>
<td>+ +</td>
</tr>
<tr>
<td>Allyl alcohol (2-propen-1), aqueous</td>
<td>96% + +</td>
</tr>
<tr>
<td>Aluminium chloride, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Aluminium hydroxide</td>
<td>any + + +</td>
</tr>
<tr>
<td>Aluminium salts, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Aluminium sulphate, solid</td>
<td>+ + +</td>
</tr>
<tr>
<td>Alumínium (all types)</td>
<td>aqueous, any + + +</td>
</tr>
<tr>
<td>Aniline acids</td>
<td>2-aminoacetofluoride (phenanthroline)</td>
</tr>
<tr>
<td>Ammonium water</td>
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</tr>
<tr>
<td>Ammonium, aqueous</td>
<td>100% + +</td>
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<tr>
<td>Ammonium, aqueous, tech. grade</td>
<td>100% + +</td>
</tr>
<tr>
<td>Ammonium, liquid</td>
<td>100% + +</td>
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<tr>
<td>Ammonium acetate, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Ammonium chloride, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Ammonium fluoride, aqueous</td>
<td>saturated + +</td>
</tr>
<tr>
<td>Ammonium hydroxide, aqueous</td>
<td>any + + +</td>
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<tr>
<td>Ammonium methylnitrosoamine</td>
<td>any + + +</td>
</tr>
<tr>
<td>Ammonium nitrate, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Ammonium phosphite, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Ammonium sulphite, aqueous</td>
<td>any + + +</td>
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<td>Amond-acetate</td>
<td>tech. grade / -</td>
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<tr>
<td>Axiline</td>
<td>any + +</td>
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<tr>
<td>Axiline hydrochloride, aqueous</td>
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<tr>
<td>Axide</td>
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<tr>
<td>Aeros (cyanoxyxamene)</td>
<td>as commercial + + +</td>
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<tr>
<td>Anti-freeze (automotive)</td>
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<tr>
<td>Antimony chloride, anhydrous</td>
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<tr>
<td>Antimony tri-chloride</td>
<td>+ + +</td>
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<tr>
<td>Apple juice</td>
<td>+ + +</td>
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<tr>
<td>Arsenic acid, adipic acid</td>
<td>+ + +</td>
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<tr>
<td>Arsenic acid, aqueous</td>
<td>+ + +</td>
</tr>
<tr>
<td>Ascorbic acid</td>
<td>+ + +</td>
</tr>
<tr>
<td>Asphalt</td>
<td>+ /D -</td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Barium hydroxide, aqueous</td>
<td>any + +</td>
</tr>
<tr>
<td>Barium salts, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Battery acid</td>
<td>+ +</td>
</tr>
<tr>
<td>Beef dripping</td>
<td>+ +</td>
</tr>
<tr>
<td>Beer</td>
<td>+ +</td>
</tr>
<tr>
<td>Beeswax</td>
<td>+ +</td>
</tr>
<tr>
<td>Benzaldehyde, aqueous</td>
<td>any + +</td>
</tr>
<tr>
<td>Benzenesulphonic acid</td>
<td>+ + +</td>
</tr>
<tr>
<td>Benzenesulphonic acid</td>
<td>+ + +</td>
</tr>
<tr>
<td>Benzene, aqueous</td>
<td>any + + +</td>
</tr>
<tr>
<td>Benzene, aqueous, tech. grade</td>
<td>+ +</td>
</tr>
<tr>
<td>Benzyl chloride</td>
<td>any + +</td>
</tr>
<tr>
<td>Benzyl chloride</td>
<td>any + +</td>
</tr>
<tr>
<td>Bichromate-sulphuric acid</td>
<td>concentrated -</td>
</tr>
<tr>
<td>Blomth salts</td>
<td>+ +</td>
</tr>
<tr>
<td>Bismuth piperide</td>
<td>+ +</td>
</tr>
<tr>
<td>Bitter almond oil</td>
<td>+ +</td>
</tr>
<tr>
<td>Boro (sodium tetraborate), aqueous</td>
<td>saturated + +</td>
</tr>
<tr>
<td>Boroic acid, aqueous</td>
<td>any + +</td>
</tr>
<tr>
<td>Boroic acid, aqueous, tech. grade</td>
<td>/ -</td>
</tr>
<tr>
<td>Boroic acid, aqueous, tech. grade</td>
<td>/ -</td>
</tr>
<tr>
<td>Brome fluid</td>
<td>+ +</td>
</tr>
<tr>
<td>Bromocromolene</td>
<td>+ +</td>
</tr>
<tr>
<td>Bromic acid</td>
<td>+ +</td>
</tr>
<tr>
<td>Bromine soap</td>
<td>high -</td>
</tr>
<tr>
<td>Bromine water</td>
<td>cold saturated -</td>
</tr>
<tr>
<td>Bromine, liquid</td>
<td>1,3 butadiene, gasous</td>
</tr>
<tr>
<td>Butene, gasous</td>
<td>100% + +</td>
</tr>
<tr>
<td>Butene, liquid</td>
<td>100% + +</td>
</tr>
<tr>
<td>Butenedial, aqueous</td>
<td>any + +</td>
</tr>
<tr>
<td>Butenedial, 1,4</td>
<td>tech. grade + +</td>
</tr>
<tr>
<td>Butene</td>
<td>100% + +</td>
</tr>
<tr>
<td>Butene, 1,4</td>
<td>tech. grade + +</td>
</tr>
<tr>
<td>Butene, 1,4</td>
<td>tech. grade + +</td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Canola</td>
<td>+ + +</td>
</tr>
<tr>
<td>Cansol</td>
<td>+ + +</td>
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<tr>
<td>Cationic and lubricants for metalworking &quot;Hoofcst&quot;</td>
<td>+ + +</td>
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<tr>
<td>Copper cyanide, aqueous</td>
<td>saturated + + +</td>
</tr>
<tr>
<td>Copper nitrate, aqueous</td>
<td>30% + +</td>
</tr>
<tr>
<td>Copper nitrate, aqueous, tech. grade</td>
<td>+ + +</td>
</tr>
<tr>
<td>Copper sulphate, aqueous</td>
<td>any + +</td>
</tr>
<tr>
<td>Cottongenin oil</td>
<td>+ + +</td>
</tr>
<tr>
<td>Croton</td>
<td>+ + +</td>
</tr>
<tr>
<td>Creosote</td>
<td>+ + +</td>
</tr>
<tr>
<td>Cynode of potash, aqueous</td>
<td>any + +</td>
</tr>
<tr>
<td>Cyclanone (fatty alcohol sulphate)</td>
<td>tech. grade + + +</td>
</tr>
<tr>
<td>Diether</td>
<td>100% + +</td>
</tr>
<tr>
<td>Cyclanone</td>
<td>100% + +</td>
</tr>
<tr>
<td>Substance</td>
<td>Koncentrace</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Deodorants</td>
<td>+</td>
</tr>
<tr>
<td>Detergents</td>
<td>+</td>
</tr>
<tr>
<td>Detergents, synthetic</td>
<td>and use conc.</td>
</tr>
<tr>
<td>Developer solutions (photographic)</td>
<td>&gt;D</td>
</tr>
<tr>
<td>Dextran</td>
<td>+</td>
</tr>
<tr>
<td>1,2-Diminothiole (ethylenediamine)</td>
<td>techn. grade</td>
</tr>
<tr>
<td>1,2-Dibromoethane</td>
<td>/</td>
</tr>
<tr>
<td>Dibutyl ether</td>
<td>/</td>
</tr>
<tr>
<td>Dibutoxybenzoate</td>
<td>+</td>
</tr>
<tr>
<td>Dichloroacetic acid</td>
<td>50%</td>
</tr>
<tr>
<td>Dichloroacetic acid methyl ester</td>
<td>+</td>
</tr>
<tr>
<td>Dichlorobenzene</td>
<td>/</td>
</tr>
<tr>
<td>Dichloroform</td>
<td>+</td>
</tr>
<tr>
<td>1,1-Dichloroethylene (vinylidene chloride)</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Diesel fuel/oil</td>
<td>100%</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td>+</td>
</tr>
<tr>
<td>Diethylene glycol, aqueous</td>
<td>30%</td>
</tr>
<tr>
<td>Dihexyl phthalate</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Dihexyl acetate</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Dibutyl phthalate, technical grade</td>
<td>+</td>
</tr>
<tr>
<td>Dimethyl formamide</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Dimethylformamide</td>
<td>+</td>
</tr>
<tr>
<td>Dioctyl phthalate</td>
<td>+</td>
</tr>
<tr>
<td>Dioxane</td>
<td>/</td>
</tr>
<tr>
<td>Disodium phosphate</td>
<td>+</td>
</tr>
<tr>
<td>Disodium sulphate</td>
<td>+</td>
</tr>
<tr>
<td>Drinking water, also chlorinated</td>
<td>+</td>
</tr>
<tr>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Eau de javelle (potassium hypochlorite bleaching solution)</td>
<td>+to/</td>
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<tr>
<td>Edible oil, vegetable</td>
<td>+</td>
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<tr>
<td>Emulsions</td>
<td>+</td>
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<tr>
<td>Emulsions (photographic)</td>
<td>+</td>
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<tr>
<td>Engine oil</td>
<td>+</td>
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<tr>
<td>Epichlorohydrin</td>
<td>+</td>
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<tr>
<td>Epoxide oil, aqueous</td>
<td>any</td>
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<tr>
<td>Ethanol</td>
<td>96%</td>
</tr>
<tr>
<td>Ethanol denatured with toluene</td>
<td>96% (v/v)</td>
</tr>
<tr>
<td>Ether</td>
<td>/</td>
</tr>
<tr>
<td>Ether oils</td>
<td>/</td>
</tr>
<tr>
<td>Ethyl acetate</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>96%</td>
</tr>
<tr>
<td>Ethyl alcohol + acetic acid (fermentation mixture)</td>
<td>used in production</td>
</tr>
<tr>
<td>Ethyl benzoate</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Ethyl chloride (chloroform)</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Ethyl chloride (dichroform)</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Ethyl chloride (dichloroform)</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>+</td>
</tr>
<tr>
<td>Ethylene oxide, gaseous</td>
<td>techn. grade</td>
</tr>
<tr>
<td>Ethyleneoxide tetracarboxylic acid</td>
<td>+</td>
</tr>
</tbody>
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<tr>
<th>Substance</th>
<th>Koncentrace</th>
<th>30°C</th>
<th>60°C</th>
<th>100°C</th>
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<tbody>
<tr>
<td>G</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas, natural and manufactured</td>
<td>techn. grade</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Gelatin</td>
<td>any</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Gin</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Glycerine, salt, aqueous</td>
<td>any</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Glucose, aqueous</td>
<td>any</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Glutin glue</td>
<td>as commercial</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Glutaric acid, aqueous</td>
<td>any</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Glycol</td>
<td>100%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Glycol, aqueous</td>
<td>as commercial</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Glycol solution</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Grapes</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Grapes, fresh juice</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexane</td>
<td>100%</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>50%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hydrofluoric acid</td>
<td>40%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hydrogen chloride, gas, dry and moist</td>
<td>Hydrogen chloride, aqueous</td>
<td>30%</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hydrogen peroxide, aqueous</td>
<td>50%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hydroxylamine</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hydroxylamine, aqueous</td>
<td>up to 10%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hydroxylamine sulphate, aqueous</td>
<td>12%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hypothiocyanic acid</td>
<td>+to/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
</tbody>
</table>

| I | | | | |
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| J | | | | |
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| K | | | | |
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| M | | | | |
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| F | | | | |
| | | | | |
| | | | | |

<p>| Fatty acid amides | + | + | + | + |
| Fatty alcohol sulphate | + | | | |
| Fertilizer salts, aqueous | any | + | + | + |
| Fe-nitric acid | + | + | + | + |
| Fish, pickled | + | + | + | + |
| Fixing salt, aqueous | any | + | + | + |
| Fish oil | + | / | | |
| Flower | + | + | + | + |
| Flourine, gaseous | - | | | |
| Formaldehyde, aqueous | up to 40% | + | + | + |
| Formamide | 50% | + | / | / |
| Formic acid, aqueous | 98% | + | | |
| Formic acid, aqueous | 10% | + | + | + |
| Fruktose (fruit sugar), aqueous | any | + | + | + |
| Fruit juices | any | + | + | + |
| Fruit pulp | + | + | + | + |
| Fruit salted | + | + | + | + |
| Fuel oils | + | + | + | + |
| Furfuryl alcohol | + | / | / | / |
| Machine oil | + | / | / | / |
| Magnesium carbonate | + | + | + | + |
| Magnesium chloride, aqueous | any | + | + | + |
| Magnesium oxide | + | + | + | + |</p>
<table>
<thead>
<tr>
<th>Substance</th>
<th>Koncentrace</th>
<th>25°C</th>
<th>40°C</th>
<th>100°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium salts, aqueous</td>
<td>any</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Magnesium sulphate, aqueous</td>
<td>any</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Methyl acid, aqueous</td>
<td>up to 10%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Manganese sulphate</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Marh</td>
<td>as supplied</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Mayonnaise</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Meat fat</td>
<td>100%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Mercury salts</td>
<td>cold saturated</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Metal soap</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Methacrylic acid</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Methanol</td>
<td>tech. grade</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Methyl acetoacetic acid methyl ester</td>
<td>tech. grade</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Methyl alcohol (methyl alcohol)</td>
<td>100%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Methyl benzene</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>Methyl bromide (bromomethane), gasous</td>
<td>tech. grade</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Methyl chloride (chloromethane), gasous</td>
<td>tech. grade</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Methyl ethyl ketone</td>
<td>tech. grade</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Methyl glycol</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4-Methyl pentanol</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Methyl sulphonylic acid</td>
<td>50%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Methylamine, aqueous</td>
<td>32%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Methylene chloride (dichloromethane)</td>
<td>/ (b)</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>MILK</td>
<td>-</td>
<td>-</td>
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<tr>
<td>MILK products</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Mineral oil (free from aromatic hydrocarbons)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Mineral water</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Menacloroacetic acid</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Menacloroacetic acid ethyl ester</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Menacloroacetic ester</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Methylal</td>
<td>100%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Motor oil (heavy duty oil)</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
</tbody>
</table>

N

<table>
<thead>
<tr>
<th>Substance</th>
<th>Koncentrace</th>
<th>25°C</th>
<th>40°C</th>
<th>100°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>100%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Niacin chloride</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Niacin</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Niacin salts, aqueous</td>
<td>cold saturated</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Niacin sulphated, aqueous</td>
<td>any</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Nitric acid</td>
<td>100%</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Nitric acid</td>
<td>25%</td>
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</tr>
<tr>
<td>Nitric acid</td>
<td>50%</td>
<td>/</td>
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<tr>
<td>Nitric acid</td>
<td>68%</td>
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<tr>
<td>Nitric acid</td>
<td>100%</td>
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<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Nitric acid</td>
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Q / R

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