

HIGH PRESSURE - fittings

Proper selection and assembly of fittings is as important for safe and long-lasting operation of a hose assembly as the selection of a hose itself. When choosing a fitting, not only working parameters of the hose assembly must be taken into consideration (see section I - Intro) but also the type of the hose they are meant for.

Fittings for high pressure hose assemblies:

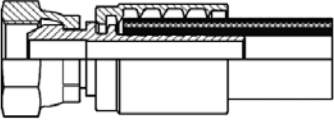
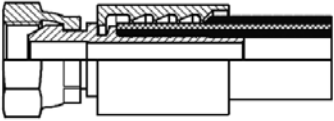
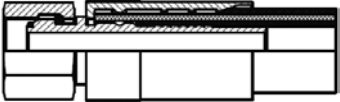
There is a great number of fitting types used and manufactured worldwide. They meet the requirements of international, domestic or a particular producer's standards. All fittings are divided according to the way the connecting side is finished (type of sealing, thread and size), but also the way the fittings are assembled on the hose. Taking this into account, there are the following types:

- two-piece crimp fittings,
- one-piece (integral) crimp fittings,
- two-piece reusable fittings.

TUBES INTERNATIONAL® supplies reusable and two-piece crimp fittings.

The two-piece crimp fittings are selected according to the type of a high pressure hose, following the technological guidelines of the manufacturer or supplier. The types of fittings and ferrules as well as technological details of the assembly process (hose preparation, crimp diameter) are given in the manuals.

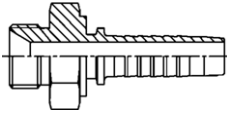
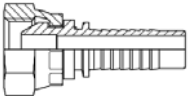
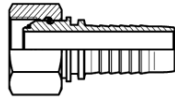
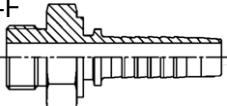
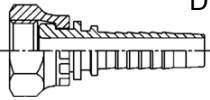

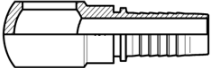
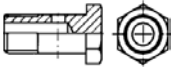
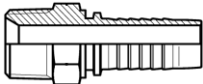
Each type of a hydraulic hose requires special preparation of the hose end for a particular connector, different fitting or ferrule.

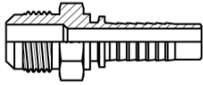
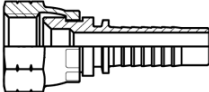
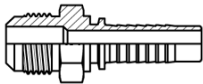
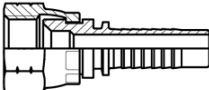
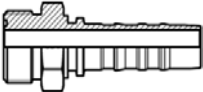
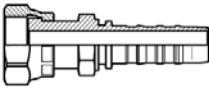
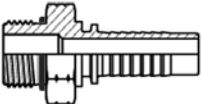
assembly	hoses	fittings	ferrules
non-skived 	textile braid	TI-Z	TI-L, MC-BP, MC-BX, ZC-BP and others
	thermoplastic		
	1SN / 2SN / 1SC / 2SC		TI-Z
	4SP / 4SH / R13 / R15	TI-N	TI-N
external skiving 	1ST / 2ST	TI-Z	-
	4SP / 4SH		TI-M
external and internal skiving 	4SH / R13 / R15	TI-IL	TI-IL

Fittings material:

Zinc-plated carbon steel or stainless steel (AISI 316 or AISI 304) as a standard. Sealing material (O-rings) - NBR as a standard, Viton optional.

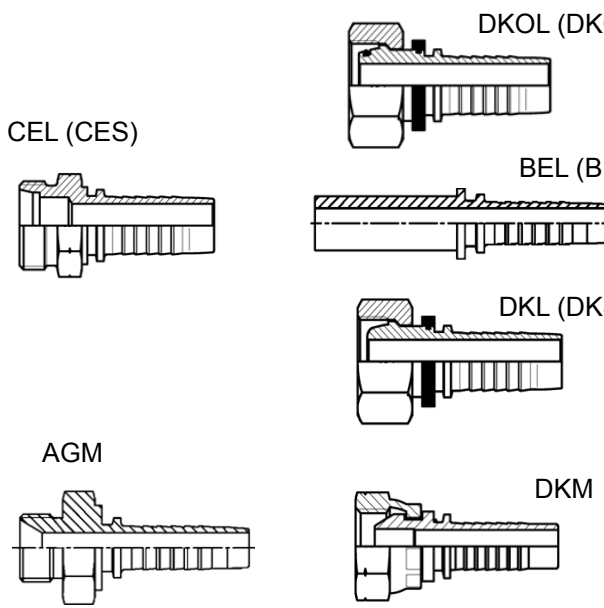

HIGH PRESSURE - fittings

Fittings with imperial pipe thread		
<p>AGR</p> 	<p>DKR</p>  <p>DKOR</p> 	<p>BSP thread, 60° cone sealing</p> <p>DKR - 60° cone, metal-metal sealing. DKOR - 60° cone, sealing with O-ring.</p>
<p>AGR-F</p> 	<p>DKR-F</p> 	<p>BSP thread, flat sealing</p> <p>Additional flat seal required.</p>
<p>AGR-K</p> 		<p>BSPT thread, sealing on the thread</p> <p>Additional sealant (PTFE type or anaerobic sealant) required. Possible sealing on 60° cone.</p>
<p>RNR</p> 		<p>BANJO bolt with BSP thread</p> <p>Sealing with the use of washers between fitting, bolt head and connection surface.</p>
<p>AGN</p> 		<p>NPT thread, sealing on thread</p> <p>Additional sealant (PTFE type or anaerobic sealant) required. Possible sealing on 60° cone.</p>

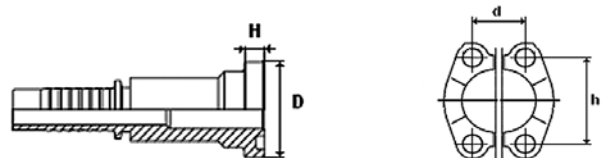
Fittings with imperial UNF thread		
<p>AGJ</p> 	<p>DKJ</p> 	<p>JIC, imperial UNF thread</p> <p>74° cone, metal-metal sealing.</p>
		<p>SAE 90°, imperial UNF thread</p> <p>90° cone, metal-metal sealing.</p>
<p>AGO</p> 	<p>DKO</p> 	<p>ORFS, imperial UNF thread</p> <p>Flat-face seal with O-ring</p>
		<p>SAE, imperial UNF thread</p> <p>O-ring sealing</p>

HIGH PRESSURE - fittings

Fittings with metric thread

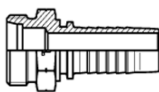
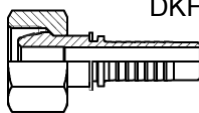

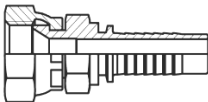
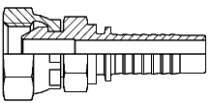

 <p>CEL (CES)</p> <p>DKOL (DKOS)</p> <p>BEL (BES)</p> <p>DKL (DKS)</p> <p>AGM</p> <p>DKM</p>	<p>Metric thread - cone 24°</p> <p>DKOL (DKOS) - Light (heavy) duty, 24° cone with O-ring. DKL (DKS) - light (heavy) duty - 24°/60° cone, metal-metal sealing. CEL (CES) - light (heavy) duty - cone 24° sealing. BEL (BES) - light (heavy) duty - sealing of cutting ring</p> <p>Metric thread - cone 60°.</p> <p>DKM - 60° cone, metal-metal sealing. AGM - 60° cone, metal-metal sealing.</p>
<p>RNM</p> 	<p>BANJO bolt with metric thread.</p> <p>Sealing with the use of washers between fittings, bolt head and connection surface.</p>

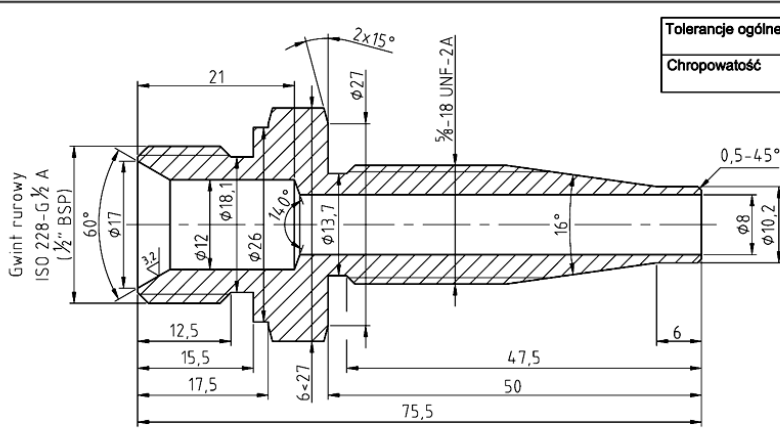
Flanged fittings

	<p>Flanged SAE</p> <p>* - JIS flange (KOMATSU)</p> <p>Sealing of O-ring</p>
---	---

flange size [inch]	light duty (3000 PSI)				heavy duty (6000 PSI)				SUPER CAT			
	D	H	d	h	D	H	d	h	D	H	d	h
1/2	30.2	6.7	17.5	38.1	31.8	7.8	18.2	40.5	31.8	14.2	-	-
5/8*	34.0	6.7	19.8	42.9	-	-	-	-	-	-	-	-
3/4	38.1	6.7	22.2	47.6	41.3	8.8	23.8	50.8	41.3	14.2	23.8	50.8
1	44.5	8	26.2	52.4	47.6	9.5	27.8	57.2	47.6	14.2	27.8	57.2
1.1/4	50.8	8	30.2	58.7	54.0	10.3	31.8	66.7	54.0	14.2	31.8	66.7
1.1/2	60.3	8	35.7	69.8	63.5	12.6	36.5	79.4	63.5	14.2	-	-
2	71.4	9.5	42.9	77.8	79.5	12.6	44.5	96.8	79.5	14.2	-	-
2.1/2	84.1	9.6	50.8	88.9	-	-	-	-	-	-	-	-
3	101.6	9.6	61.9	106.4	-	-	-	-	-	-	-	-
3.1/2	114.3	11.3	69.9	120.7	-	-	-	-	-	-	-	-
4	127	11.3	77.8	130.2	-	-	-	-	-	-	-	-
5	152.4	11.3	92.1	152.4	-	-	-	-	-	-	-	-

HIGH PRESSURE - fittings

Other endings	
<p>AGF</p> 	<p>DKF</p>  <p>BEF</p> 
	<p>Metric thread, fitting according to French standards:</p> <p>DKF - 24° cone, metal-metal sealing. AGF - 24° cone sealing. BEF - sealing of cutting ring</p>
	<p>JIS, metric thread (KOMATSU)</p> <p>60° cone, metal-metal sealing.</p> <p>JIS, BSP thread (TOYOTA)</p> <p>60° cone, metal-metal sealing.</p>
	<p>JIS, BSP thread (NISSAN)</p> <p>60° cone, metal-metal sealing.</p>
	<p>STECK-O, plug ending</p> <p>O-ring seal</p>

Fitting according to customer's specification																																																																	
	<table border="1"> <tr> <td>Tolerancja ogólna</td> <td>IT 13</td> </tr> <tr> <td>Chropowość</td> <td>12,5/ (✓)</td> </tr> </table>	Tolerancja ogólna	IT 13	Chropowość	12,5/ (✓)																																																												
Tolerancja ogólna	IT 13																																																																
Chropowość	12,5/ (✓)																																																																
<p>Zastrzeżenie: Wszelkie prawa w tym rysunku są własnością Tubes International Sp. z o.o. Zabrania się go kopiować, uzupełniać oraz prezentować osobom nieupoważnionym bez wczesniejszej pisemnej zgody Tubes International Sp. z o.o.</p>	<table border="1"> <tr> <td colspan="2">1.4301 (AISI 304)</td> <td colspan="2">Ostre krawędzie stępić.</td> </tr> <tr> <td colspan="2">Materiał</td> <td colspan="2">Uwagi</td> </tr> <tr> <td colspan="4" style="text-align: right;">Wydanie 0</td> </tr> <tr> <td>II. szt.</td> <td colspan="3">Nr wyższej jednostki</td> </tr> <tr> <td>Podziałka</td> <td>Nazwisko</td> <td>Data</td> <td>Podpis</td> </tr> <tr> <td>2:1</td> <td>Konstruował</td> <td>-</td> <td>xxx</td> </tr> <tr> <td></td> <td>Rysował</td> <td>-</td> <td>xxx</td> </tr> <tr> <td></td> <td>Sprawdził</td> <td>-</td> <td>xxx</td> </tr> <tr> <td></td> <td>Zatwierdził</td> <td>-</td> <td>xxx</td> </tr> <tr> <td></td> <td>Nr zm.</td> <td>Nazwisko</td> <td>Data</td> </tr> <tr> <td></td> <td>0</td> <td>-</td> <td>-</td> </tr> <tr> <td></td> <td></td> <td>Data</td> <td>Podpis</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Plik</td> </tr> <tr> <td colspan="2">TUBES International</td> <td>Nazwa</td> <td>Indeks</td> </tr> <tr> <td colspan="2"></td> <td>Końcówka</td> <td>ZS/....</td> </tr> <tr> <td colspan="3"></td> <td>Ark. 1 / 1</td> </tr> </table>	1.4301 (AISI 304)		Ostre krawędzie stępić.		Materiał		Uwagi		Wydanie 0				II. szt.	Nr wyższej jednostki			Podziałka	Nazwisko	Data	Podpis	2:1	Konstruował	-	xxx		Rysował	-	xxx		Sprawdził	-	xxx		Zatwierdził	-	xxx		Nr zm.	Nazwisko	Data		0	-	-			Data	Podpis				Plik	TUBES International		Nazwa	Indeks			Końcówka	ZS/....				Ark. 1 / 1
1.4301 (AISI 304)		Ostre krawędzie stępić.																																																															
Materiał		Uwagi																																																															
Wydanie 0																																																																	
II. szt.	Nr wyższej jednostki																																																																
Podziałka	Nazwisko	Data	Podpis																																																														
2:1	Konstruował	-	xxx																																																														
	Rysował	-	xxx																																																														
	Sprawdził	-	xxx																																																														
	Zatwierdził	-	xxx																																																														
	Nr zm.	Nazwisko	Data																																																														
	0	-	-																																																														
		Data	Podpis																																																														
			Plik																																																														
TUBES International		Nazwa	Indeks																																																														
		Końcówka	ZS/....																																																														
			Ark. 1 / 1																																																														

HIGH PRESSURE - fittings

The codes of ferrules and hydraulic fittings and types of the fitting connecting part:

Ferrules and hydraulic fittings are marked with a code that facilitates its recognition:

- a) The thread size of a fitting connecting part as well as hose size, which the fitting and ferrule are intended for, is given in a sixteenth part of an inch - unit of measure is 1/16".

The most common marking:

thread size or hose size [inch]	for hose		size in a sixteenth part of an inch	dash number
	I.D. [mm]	DN [mm]		
1/8	3.2	3	2/16	-02
3/16	4.8	5	3/16	-03
1/4	6.4	6	4/16	-04
5/16	7.9	8	5/16	-05
3/8	9.5	10	6/16	-06
1/2	12.7	12 (13)	8/16	-08
5/8	15.9	16	10/16	-10
3/4	19.1	19 (20)	12/16	-12
1	25.4	25	16/16	-16
1.1/4	31.8	32	20/16	-20
1.1/2	38.1	38 (40)	24/16	-24
2	50.8	50 (51)	32/16	-32

- b) A code example of a straight BSP fitting with 3/8" female thread for 1/2" hose:

TI - ZBW110 - 06 - 08

- TI** - code group (TUBES INTERNATIONAL®),
Z - standard fitting (**Z**), also: **IL** - for 4 and 6 spirals hoses - INTERLOCK system, **S** - reusable fitting,
B - the end of a connection part - BSP thread, also: **M** - metric, **J** - JIC, **S** - SAE flange,
W - female thread, also: **Z** - male thread, **K** - flange, etc.,
1 - straight fitting, also: **2** - 90° elbow, **3** - 45° elbow, **4**, **5** and **6** - special,
10 - specific type of the connection part which describes a kind of sealing, etc.,
-06 - thread size 3/8",
-08 - hose size 1/2".

- c) A code example of a ferrule for 1/2" hose according to SAE100R2AT (two braids, non-skived):

TI - Z2TX- 08

- TI** - code group (TUBES INTERNATIONAL®),
Z - standard ferrule (**Z**), also: **M** - for multispiral hoses, **IL** - for multispiral hoses - INTERLOCK system,
2TX - particular hose type which the ferrule is intended for,
-08 - hose size 1/2".

STAINLESS STEEL CONNECTORS

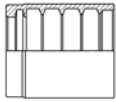
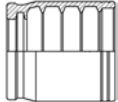
Most of fittings and ferrules, described in our catalogue, are available in stainless steel. Their codes require adding SS suffix. During ordering or enquiry process the grade of stainless steel should be determined by the customer. The most popular grades are AISI 304 and AISI 316 (see TECHNICAL INFORMATION at the end of the catalogue).

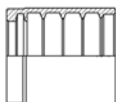

FITTINGS IDENTIFICATION

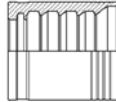
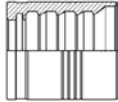
Information given in this catalogue enable correct identification of a fitting type and a thread size of a connector (pipe stub, flange). The thread should be measured with a calliper and the number of threads per inch with a thread pitch gauge. Having such data, any type of fitting can be identified with help of the table for thread identification in TECHNICAL INFORMATION chapter at the end of the catalogue.

HIGH PRESSURE - fittings

Standard fittings - Z type

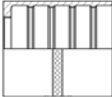
TI-Z STANDARD	Crimp ferrules for hydraulic rubber hoses			
	Z1TX		Z2TX	
hose I.D. [inch]				
	code	hose type	code	hose type
3/16	TI-Z1TX-03	1SN(R1AT)	TI-Z2TX-03	2SN(R2AT)
1/4	TI-Z1TX-04	1SN(R1AT) / 2SC	TI-Z2TX-04	1SN(R1AT) / 2SN(R2AT)
5/16	TI-Z1TX-05		TI-Z2TX-05	
3/8	TI-Z1TX-06		TI-Z2TX-06	
1/2	TI-Z1TX-08		TI-Z2TX-08	
5/8	TI-Z1TX-10		TI-Z2TX-10	
3/4	TI-Z1TX-12		TI-Z2TX-12	
1	TI-Z1TX-16	1SN(R1AT)	TI-Z2TX-16	2SN(R2AT)
1.1/4	TI-Z1TX-20		TI-Z2TX-20	
1.1/2	TI-Z1TX-24		TI-Z2TX-24	
2	TI-Z1TX-32		TI-Z2TX-32	

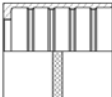
TI-Z STANDARD	Crimp ferrules for hydraulic rubber hoses			
	Z1TC		ZF12T	
hose I.D. [inch]				
	code	hose type	code	hose type
1/4	TI-Z1TC-04	1SC	TI-ZF12T-04-SS	1SN(R1AT) / 2SN(R2AT)
5/16	TI-Z1TC-05		TI-ZF12T-05-SS	
3/8	TI-Z1TC-06		TI-ZF12T-06-SS	
1/2	TI-Z1TC-08		TI-ZF12T-08-SS	
5/8	TI-Z1TC-10		TI-ZF12T-10-SS	
3/4	TI-Z1TC-12		TI-ZF12T-12-SS	
1	TI-Z1TC-16		TI-ZF12T-16-SS	
1.1/4			TI-ZF12T-20-SS	
1.1/2			TI-ZF12T-24-SS	
2			TI-ZF12T-32-SS	

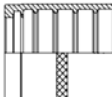
TI-M STANDARD	Crimp ferrules for hydraulic rubber hoses			
	M9X		M4X	
hose I.D. [inch]				
	code	hose type	code	hose type
1/4	TI-M9X-04	4SP		
3/8	TI-M9X-06			
1/2	TI-M9X-08			
5/8	TI-M9X-10			
3/4	TI-M9X-12	4SP		
1	TI-M9X-16	4SH		
1.1/4	TI-M9X-20	4SP	TI-M4X-20	4SH
1.1/2	TI-M9X-24		TI-M4X-24	
2	TI-M9X-32		TI-M4X-32	

HIGH PRESSURE - fittings

Standard fittings - Z type

ZC-BP5		Crimp ferrule for thermoplastic hoses	
hose I.D. [inch]	ferrule I.D. [mm]		
		code	hose type
1/8	7.8	ZC-BP5-02	OL5 / VE5
5/32	8.6	ZC-BP5-025	
3/16	9.8	ZC-BP5-03	
1/4	11.1	ZC-BP5-04	
5/16	13.8	ZC-BP5-05	
3/8	15.1	ZC-BP5-06	
1/2	19.1	ZC-BP5-08	


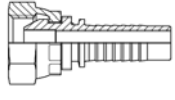
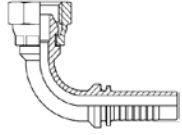
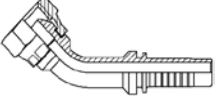
ZC-BP7 / BP8		Crimp ferrule for thermoplastic hoses	
hose I.D. [inch]	ferrule I.D. [mm]		
		code	hose type
1/8	9	ZC-BP7-02	SAE100R7
5/32	9.3	ZC-BP7-025	
3/16	10.7	ZC-BP7-03	
1/4	12.4	ZC-BP7-04	
5/16	15.4	ZC-BP7-05	
3/8	17	ZC-BP7-06	
1/2	21.5	ZC-BP7-08	
5/8	24.2	ZC-BP7-10	
3/4	27.1	ZC-BP7-12	
1	33.1	ZC-BP7-16	
1	55.5	ZC-BP8-16	SAE100R8

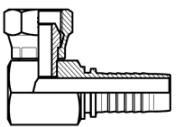
MC-BX7		Crimp ferrule for thermoplastic hoses	
hose I.D. [inch]	ferrule I.D. [mm]		
		code	hose type
3/16	11.6	MC-BX7-03	SAE100R6 / R7 / R8
1/4	13.9	MC-BX7-04	
5/16	15.9	MC-BX7-05	
3/8	17.5	MC-BX7-06	
1/2	21.3	MC-BX7-08	
5/8	24.8	MC-BX7-10	
3/4	28.2	MC-BX7-12	
1	34.6	MC-BX7-16	SAE100R6 / R7
1		MC-BX8-16	SAE100R8

Note!
For thermoplastic and hydraulic rubber hoses with textile braid, properly selected ferrules of L type can be used (see "INDUSTRIAL FITTINGS - clips, clamps, ferrules").

HIGH PRESSURE - fittings

Standard fittings - Z type

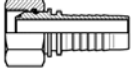
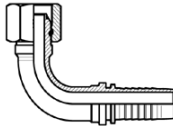
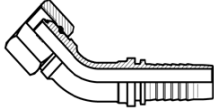
TI-Z STANDARD		BSP thread, 60° cone			
		AGR	DKR	DKR 90	DKR 45
thread size [inch]	hose I.D. [inch]				
		code	code	code	code
1/8	3/16	TI-ZBZ110-02-03	TI-ZBW110-02-03*	TI-ZBW210-02-03	TI-ZBW310-02-03
	1/4	TI-ZBZ110-02-04*	TI-ZBW110-02-04*	TI-ZBW210-02-04	TI-ZBW310-02-04
1/4	3/16	TI-ZBZ110-04-03*	TI-ZBW110-04-03*	TI-ZBW210-04-03*	TI-ZBW310-04-03*
	1/4	TI-ZBZ110-04-04*	TI-ZBW110-04-04*	TI-ZBW210-04-04*	TI-ZBW310-04-04*
	5/16	TI-ZBZ110-04-05	TI-ZBW110-04-05*	TI-ZBW210-04-05	TI-ZBW310-04-05
3/8	3/8	TI-ZBZ110-04-06	TI-ZBW110-04-06	TI-ZBW210-04-06	TI-ZBW310-04-06
	1/4	TI-ZBZ110-06-04*	TI-ZBW110-06-04*	TI-ZBW210-06-04*	TI-ZBW310-06-04*
	5/16	TI-ZBZ110-06-05*	TI-ZBW110-06-05*	TI-ZBW210-06-05*	TI-ZBW310-06-05*
	3/8	TI-ZBZ110-06-06*	TI-ZBW110-06-06*	TI-ZBW210-06-06*	TI-ZBW310-06-06*
	1/2	TI-ZBZ110-06-08	TI-ZBW110-06-08*	TI-ZBW210-06-08	TI-ZBW310-06-08
1/2	1/4	TI-ZBZ110-08-04	TI-ZBW110-08-04	-	-
	5/16	TI-ZBZ110-08-05	TI-ZBW110-08-05	-	-
	3/8	TI-ZBZ110-08-06*	TI-ZBW110-08-06*	TI-ZBW210-08-06*	TI-ZBW310-08-06*
	1/2	TI-ZBZ110-08-08*	TI-ZBW110-08-08*	TI-ZBW210-08-08*	TI-ZBW310-08-08*
	5/8	TI-ZBZ110-08-10	TI-ZBW110-08-10*	TI-ZBW210-08-10	TI-ZBW310-08-10
	3/4	TI-ZBZ110-08-12	TI-ZBW110-08-12	-	-
5/8	1/2	-	TI-ZBW110-10-08*	TI-ZBW210-10-08	TI-ZBW310-10-08
	5/8	TI-ZBZ110-10-10*	TI-ZBW110-10-10*	TI-ZBW210-10-10*	TI-ZBW310-10-10*
	3/4	-	TI-ZBW110-10-12	-	-
3/4	1/2	TI-ZBZ110-12-08	TI-ZBW110-12-08*	TI-ZBW210-12-08*	TI-ZBW310-12-08
	5/8	TI-ZBZ110-12-10*	TI-ZBW110-12-10*	TI-ZBW210-12-10*	TI-ZBW310-12-10*
	3/4	TI-ZBZ110-12-12*	TI-ZBW110-12-12*	TI-ZBW210-12-12*	TI-ZBW310-12-12*
	1	TI-ZBZ110-12-16	TI-ZBW110-12-16	-	-
1	3/4	TI-ZBZ110-16-12*	TI-ZBW110-16-12*	TI-ZBW210-16-12*	TI-ZBW310-16-12*
	1	TI-ZBZ110-16-16*	TI-ZBW110-16-16*	TI-ZBW210-16-16*	TI-ZBW310-16-16*
	1.1/4	TI-ZBZ110-16-20	-	-	-
1.1/4	1	TI-ZBZ110-20-16*	TI-ZBW110-20-16*	TI-ZBW210-20-16	TI-ZBW310-20-16
	1.1/4	TI-ZBZ110-20-20*	TI-ZBW110-20-20*	TI-ZBW210-20-20*	TI-ZBW310-20-20*
	1.1/2	TI-ZBZ110-20-24	-	-	-
1.1/2	1.1/4	TI-ZBZ110-24-20*	TI-ZBW110-24-20*	TI-ZBW210-24-20	TI-ZBW310-24-20
	1.1/2	TI-ZBZ110-24-24*	TI-ZBW110-24-24*	TI-ZBW210-24-24*	TI-ZBW310-24-24*
2	1.1/2	-	TI-ZBW110-32-24*	TI-ZBW210-32-24	TI-ZBW310-32-24
	2	TI-ZBZ110-32-32*	TI-ZBW110-32-32*	TI-ZBW210-32-32*	TI-ZBW310-32-32*


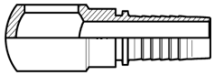
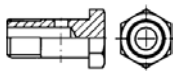
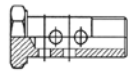
TI-Z STANDARD		BSP thread, 60° cone - COMPACT
		DKR 90
thread size [inch]	hose I.D. [inch]	
		code
1/4	1/4	TI-ZBW410-04-04
3/8	3/8	TI-ZBW410-06-06
1/2	1/2	TI-ZBW410-08-08
3/4	3/4	TI-ZBW410-12-12

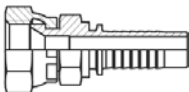
* - available in AISI 316 steel

HIGH PRESSURE - fittings

Standard fittings - Z type

TI-Z STANDARD		BSP thread, 60° cone, O-ring		
		DKOR	DKOR 90	DKOR 45
thread size [inch]	hose I.D. [inch]			
		code	code	code
1/4	1/4	TI-ZBW120-04-04	TI-ZBW220-04-04	TI-ZBW320-04-04
3/8	3/8	TI-ZBW120-06-06	TI-ZBW220-06-06	TI-ZBW320-06-06
1/2	1/2	TI-ZBW120-08-08	TI-ZBW220-08-08	TI-ZBW320-08-08
3/4	3/4	TI-ZBW120-12-12	TI-ZBW220-12-12	TI-ZBW320-12-12
1	1	TI-ZBW120-16-16	TI-ZBW220-16-16	TI-ZBW320-16-16
1.1/4	1.1/4	TI-ZBW120-20-20	TI-ZBW220-20-20	TI-ZBW320-20-20
1.1/2	1.1/2	TI-ZBW120-24-24	TI-ZBW220-24-24	TI-ZBW320-24-24
2	2	TI-ZBW120-32-32	TI-ZBW220-32-32	TI-ZBW320-32-32

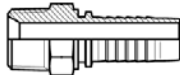

TI-Z STANDARD		BANJO imperial			
		copper washer	RNR	bolt	double bolt
thread size [inch]	hose I.D. [inch]				
		code	code	code	code
1/8	3/16	TI-UM-10/16	TI-ZBB600-02-03	TI-ZBB610-02	TI-ZBB620-02
	1/4		TI-ZBB600-02-04		
1/4	3/16	TI-UM-13/19	TI-ZBB600-04-03	TI-ZBB610-04*	TI-ZBB620-04
	1/4		TI-ZBB600-04-04*		
	5/16		TI-ZBB600-04-05		
	3/8		TI-ZBB600-04-06		
3/8	1/4	TI-UM-17/21	TI-ZBB600-06-04	TI-ZBB610-06*	TI-ZBB620-06
	5/16		TI-ZBB600-06-05*		
	3/8		TI-ZBB600-06-06*		
1/2	1/2	TI-UM-21/26	TI-ZBB600-08-08*	TI-ZBB610-08*	TI-ZBB620-08
	3/8		TI-ZBB600-08-06*		
5/8	1/2	TI-UM-24/30	TI-ZBB600-10-08	TI-ZBB610-10	TI-ZBB620-10
	5/8		TI-ZBB600-10-10		
3/4	1/2	TI-UM-27/33	TI-ZBB600-12-08*	TI-ZBB610-12*	TI-ZBB620-12
	5/8		TI-ZBB600-12-10		
	3/4		TI-ZBB600-12-12*		
1	3/4	TI-UM-33/40	TI-ZBB600-16-12	TI-ZBB610-16*	TI-ZBB620-16
	1		TI-ZBB600-16-16*		

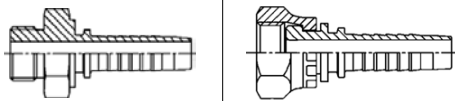
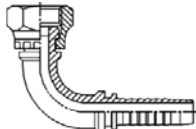
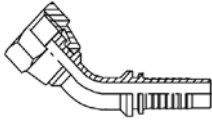
TI-Z STANDARD		BSP thread, reversed cone 60° - TOYOTA	
thread size [inch]	hose I.D. [inch]		
		code	
1/4	1/4		TI-ZBW150-04-04
3/8	3/8		TI-ZBW150-06-06
1/2	1/2		TI-ZBW150-08-08
3/4	3/4		TI-ZBW150-12-12
1	1		TI-ZBW150-16-16

* - available in AISI 316 steel

HIGH PRESSURE - fittings

Standard fittings - Z type

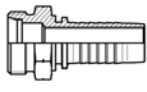
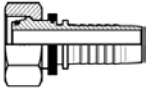
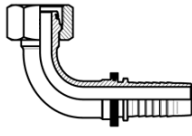
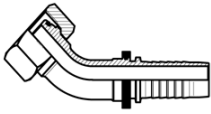
TI-Z STANDARD		BSPT thread, 60° cone		NPT thread, 60° cone	
		AGR-K		AGN	
thread size [inch]	hose I.D. [inch]				
		code		code	
1/8	3/16	TI-ZBZ130-02-03		TI-ZNZ110-02-03*	
	1/4	TI-ZBZ130-02-04		TI-ZNZ110-02-04*	
1/4	3/16	TI-ZBZ130-04-03*		TI-ZNZ110-04-03*	
	1/4	TI-ZBZ130-04-04*		TI-ZNZ110-04-04*	
	5/16	TI-ZBZ130-04-05*		TI-ZNZ110-04-05*	
	3/8	TI-ZBZ130-04-06*		TI-ZNZ110-04-06	
3/8	1/4	TI-ZBZ130-06-04*		TI-ZNZ110-06-04*	
	5/16	TI-ZBZ130-06-05*		TI-ZNZ110-06-05*	
	3/8	TI-ZBZ130-06-06*		TI-ZNZ110-06-06*	
	1/2	TI-ZBZ130-06-08		TI-ZNZ110-06-08	
1/2	3/8	TI-ZBZ130-08-06*		TI-ZNZ110-08-06*	
	1/2	TI-ZBZ130-08-08*		TI-ZNZ110-08-08*	
	5/8	TI-ZBZ130-08-10		TI-ZNZ110-08-10	
5/8	5/8	TI-ZBZ130-10-10		TI-ZNZ110-10-10*	
3/4	1/2	TI-ZBZ130-12-08*		TI-ZNZ110-12-08*	
	5/8	TI-ZBZ130-12-10*		TI-ZNZ110-12-10*	
	3/4	TI-ZBZ130-12-12*		TI-ZNZ110-12-12*	
1	3/4	TI-ZBZ130-16-12*		TI-ZNZ110-16-12*	
	1	TI-ZBZ130-16-16*		TI-ZNZ110-16-16*	
1.1/4	1	TI-ZBZ130-20-16*		TI-ZNZ110-20-16*	
	1.1/4	TI-ZBZ130-20-20*		TI-ZNZ110-20-20*	
	1.1/2	TI-ZBZ130-20-24			
1.1/2	1.1/4	TI-ZBZ130-24-20*		TI-ZNZ110-24-20*	
	1.1/2	TI-ZBZ130-24-24*		TI-ZNZ110-24-24*	
2	2	TI-ZBZ130-32-32*		TI-ZNZ110-32-32*	

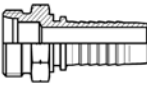
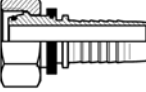
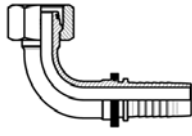
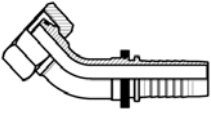
TI-Z STANDARD		BSP thread, flat sealing			
		AGR-F	DKR-F	DKR-F 90	DKR-F 45
thread size [inch]	hose I.D. [inch]				
		code	code	code	code
1/4	1/4	TI-ZBZ140-04-04*	TI-ZBW140-04-04*	TI-ZBW240-04-04	TI-ZBW340-04-04
3/8	1/4	TI-ZBZ140-06-04	TI-ZBW140-06-04*	-	-
	5/16	TI-ZBZ140-06-05*	TI-ZBW140-06-05*	-	-
	3/8	TI-ZBZ140-06-06*	TI-ZBW140-06-06*	TI-ZBW240-06-06	TI-ZBW340-06-06
1/2	5/16	TI-ZBZ140-08-05	-	-	-
	3/8	TI-ZBZ140-08-06*	TI-ZBW140-08-06*	-	-
	1/2	TI-ZBZ140-08-08*	TI-ZBW140-08-08*	TI-ZBW240-08-08	TI-ZBW340-08-08
5/8	1/2	-	TI-ZBW140-10-08	-	-
	5/8	TI-ZBZ140-10-10*	TI-ZBW140-10-10	TI-ZBW240-10-10	TI-ZBW340-10-10
3/4	1/2	TI-ZBZ140-12-08	TI-ZBW140-12-08*	-	-
	5/8	TI-ZBZ140-12-10	TI-ZBW140-12-10*	-	-
	3/4	TI-ZBZ140-12-12*	TI-ZBW140-12-12*	TI-ZBW240-12-12	TI-ZBW340-12-12
1	3/4	TI-ZBZ140-16-12*	TI-ZBW140-16-12	-	-
	1	TI-ZBZ140-16-16*	TI-ZBW140-16-16*	TI-ZBW240-16-16	TI-ZBW340-16-16
1.1/4	1.1/4	-	TI-ZBW140-20-20*	TI-ZBW240-20-20	TI-ZBW340-20-20
1.1/2	1.1/2	-	TI-ZBW140-24-24*	-	-
2	2	-	TI-ZBW140-32-32*	-	-

* - available in AISI 316 steel

HIGH PRESSURE - fittings

Standard fittings - Z type

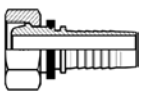
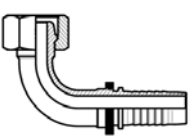
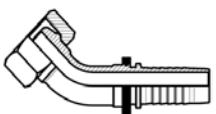
TI-Z STANDARD		Metric thread, 24° cone, O-ring, light duty			
thread size [mm]	hose I.D. [inch]	CEL	DKOL	DKOL 90	DKOL 45
					
		code	code	code	code
M12x1.5	3/16	TI-ZMZ111-12-03*	TI-ZMW121-12-03*	TI-ZMW221-12-03	TI-ZMW321-12-03
	1/4	TI-ZMZ111-12-04*	TI-ZMW121-12-04*	TI-ZMW221-12-04*	TI-ZMW321-12-04*
M14x1.5	3/16	-	TI-ZMW121-14-03	TI-ZMW221-14-03	TI-ZMW321-14-03
	1/4	TI-ZMZ111-14-04*	TI-ZMW121-14-04*	TI-ZMW221-14-04*	TI-ZMW321-14-04*
M16x1.5	1/4	TI-ZMZ111-16-04*	TI-ZMW121-16-04*	TI-ZMW221-16-04*	TI-ZMW321-16-04*
	5/16	TI-ZMZ111-16-05*	TI-ZMW121-16-05*	TI-ZMW221-16-05*	TI-ZMW321-16-05*
	3/8	TI-ZMZ111-16-06*	TI-ZMW121-16-06*	TI-ZMW221-16-06*	TI-ZMW321-16-06*
M18x1.5	1/4	TI-ZMZ111-18-04*	TI-ZMW121-18-04*	TI-ZMW221-18-04	TI-ZMW321-18-04
	5/16	TI-ZMZ111-18-05*	TI-ZMW121-18-05*	TI-ZMW221-18-05*	TI-ZMW321-18-05
	3/8	TI-ZMZ111-18-06*	TI-ZMW121-18-06*	TI-ZMW221-18-06*	TI-ZMW321-18-06*
M22x1.5	3/8	TI-ZMZ111-22-06*	TI-ZMW121-22-06*	TI-ZMW221-22-06*	TI-ZMW321-22-06
	1/2	TI-ZMZ111-22-08*	TI-ZMW121-22-08*	TI-ZMW221-22-08*	TI-ZMW321-22-08*
M26x1.5	1/2	TI-ZMZ111-26-08*	TI-ZMW121-26-08*	TI-ZMW221-26-08	TI-ZMW321-26-08
	5/8	TI-ZMZ111-26-10*	TI-ZMW121-26-10*	TI-ZMW221-26-10*	TI-ZMW321-26-10*
M27x2	5/8	TI-ZMZ111-27-10*	TI-ZMW121-27-10*	TI-ZMW221-27-10*	TI-ZMW321-27-10*
M30x2	5/8	TI-ZMZ111-30-10	TI-ZMW121-30-10	TI-ZMW221-30-10	TI-ZMW321-30-10
	3/4	TI-ZMZ111-30-12*	TI-ZMW121-30-12*	TI-ZMW221-30-12*	TI-ZMW321-30-12*
M36x2	1	TI-ZMZ111-36-16*	TI-ZMW121-36-16*	TI-ZMW221-36-16*	TI-ZMW321-36-16*
M45x2	1.1/4	TI-ZMZ111-45-20*	TI-ZMW121-45-20*	TI-ZMW221-45-20*	TI-ZMW321-45-20*
M52x2	1.1/2	TI-ZMZ111-52-24*	TI-ZMW121-52-24*	TI-ZMW221-52-24*	TI-ZMW321-52-24*

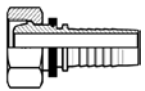
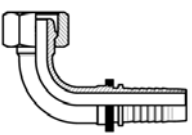
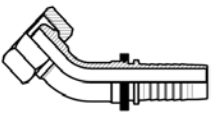
TI-Z STANDARD		Metric thread, 24° cone, O-ring, heavy duty			
thread size [mm]	hose I.D. [inch]	CES	DKOS	DKOS 90	DKOS 45
					
		code	code	code	code
M14x1.5	3/16	-	TI-ZMW122-14-03	TI-ZMW222-14-03	TI-ZMW322-14-03
	1/4	TI-ZMZ112-14-04	TI-ZMW122-14-04	TI-ZMW222-14-04*	TI-ZMW322-14-04*
M16x1.5	3/16	-	TI-ZMW122-16-03	TI-ZMW222-16-03	TI-ZMW322-16-03
	1/4	TI-ZMZ112-16-04*	TI-ZMW122-16-04*	TI-ZMW222-16-04*	TI-ZMW322-16-04*
M18x1.5	1/4	TI-ZMZ112-18-04*	TI-ZMW122-18-04*	TI-ZMW222-18-04*	TI-ZMW322-18-04*
	5/16	TI-ZMZ112-18-05*	TI-ZMW122-18-05	TI-ZMW222-18-05	TI-ZMW322-18-05
	3/8	TI-ZMZ112-18-06*	TI-ZMW122-18-06	TI-ZMW222-18-06	TI-ZMW322-18-06
M20x1.5	1/4	TI-ZMZ112-20-04	TI-ZMW122-20-04	TI-ZMW222-20-04	TI-ZMW322-20-04
	5/16	TI-ZMZ112-20-05*	TI-ZMW122-20-05*	TI-ZMW222-20-05*	TI-ZMW322-20-05*
	3/8	TI-ZMZ112-20-06*	TI-ZMW122-20-06*	TI-ZMW222-20-06*	TI-ZMW322-20-06*
M22x1.5	3/8	TI-ZMZ112-22-06*	TI-ZMW122-22-06*	TI-ZMW222-22-06*	TI-ZMW322-22-06*
	1/2	TI-ZMZ112-22-08*	TI-ZMW122-22-08	TI-ZMW222-22-08	TI-ZMW322-22-08
M24x1.5	1/2	TI-ZMZ112-24-08*	TI-ZMW122-24-08*	TI-ZMW222-24-08*	TI-ZMW322-24-08*
M30x2	5/8	TI-ZMZ112-30-10*	TI-ZMW122-30-10*	TI-ZMW222-30-10*	TI-ZMW322-30-10*
	3/4	TI-ZMZ112-30-12*	TI-ZMW122-30-12*	TI-ZMW222-30-12*	TI-ZMW322-30-12*
M36x2	3/4	TI-ZMZ112-36-12*	TI-ZMW122-36-12*	TI-ZMW222-36-12*	TI-ZMW322-36-12*
	1	TI-ZMZ112-36-16*	TI-ZMW122-36-16*	TI-ZMW222-36-16*	TI-ZMW322-36-16*
M42x2	1	TI-ZMZ112-42-16*	TI-ZMW122-42-16*	TI-ZMW222-42-16*	TI-ZMW322-42-16*
	1.1/4	TI-ZMZ112-42-20	TI-ZMW122-42-20	TI-ZMW222-42-20	TI-ZMW322-42-20
M52x2	1.1/4	TI-ZMZ112-52-20*	TI-ZMW122-52-20*	TI-ZMW222-52-20*	TI-ZMW322-52-20*
	1.1/2	TI-ZMZ112-52-24*	TI-ZMW122-52-24	TI-ZMW222-52-24	TI-ZMW322-52-24

* - available in AISI 316 steel

HIGH PRESSURE - fittings

Standard fittings - Z type


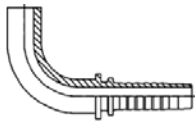
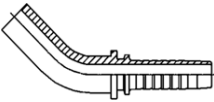
TI-Z STANDARD		Metric thread, 24°/60° cone, light duty		
		DKL	DKL 90	DKL 45
thread size [mm]	hose I.D. [inch]			
		code	code	code
M12x1.5	1/4	TI-ZMW111-12-04*	TI-ZMW211-12-04*	TI-ZMW311-12-04*
M14x1.5	1/4	TI-ZMW111-14-04*	TI-ZMW211-14-04*	TI-ZMW311-14-04*
M16x1.5	1/4	TI-ZMW111-16-04	TI-ZMW211-16-04	TI-ZMW311-16-04
	5/16	TI-ZMW111-16-05*	TI-ZMW211-16-05*	TI-ZMW311-16-05*
	3/8	TI-ZMW111-16-06	TI-ZMW211-16-06	TI-ZMW311-16-06
M18x1.5	5/16	TI-ZMW111-18-05	TI-ZMW211-18-05	TI-ZMW311-18-05
	3/8	TI-ZMW111-18-06*	TI-ZMW211-18-06*	TI-ZMW311-18-06*
M22x1.5	3/8	TI-ZMW111-22-06	TI-ZMW211-22-06	TI-ZMW311-22-06
	1/2	TI-ZMW111-22-08*	TI-ZMW211-22-08*	TI-ZMW311-22-08*
	1/2	TI-ZMW111-22-16L-08	TI-ZMW211-22-16L-08	TI-ZMW311-22-16L-08
M26x1.5	5/8	TI-ZMW111-26-10*	TI-ZMW211-26-10*	TI-ZMW311-26-10*
M27x1.5	5/8	TI-ZMW111-27X1,5-10	TI-ZMW211-27X1,5-10	
M27x2	5/8	TI-ZMW111-27-10	TI-ZMW211-27-10	TI-ZMW311-27-10
M30x2	3/4	TI-ZMW111-30-12*	TI-ZMW211-30-12*	TI-ZMW311-30-12*
M33x1.5	3/4	TI-ZMW111-33X1,5-12	TI-ZMW211-33X1,5-12	
M33x2	3/4	TI-ZMW111-33-12	TI-ZMW211-33-12	
M36x2	1	TI-ZMW111-36-16*	TI-ZMW211-36-16*	TI-ZMW311-36-16*
M45x2	1.1/4	TI-ZMW111-45-20*	TI-ZMW211-45-20*	TI-ZMW311-45-20*
M52x2	1.1/2	TI-ZMW111-52-24*	TI-ZMW211-52-24*	TI-ZMW311-52-24*

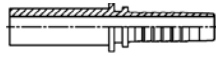
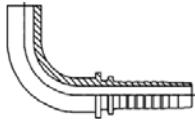
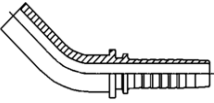
TI-Z STANDARD		Metric thread, 24°/60° cone, heavy duty		
		DKS	DKS 90	DKS 45
thread size [mm]	hose I.D. [inch]			
		code	code	code
M18x1.5	1/4	TI-ZMW112-18-04*	TI-ZMW212-18-04*	TI-ZMW312-18-04*
M20x1.5	5/16	TI-ZMW112-20-05*	TI-ZMW212-20-05*	TI-ZMW312-20-05*
M22x1.5	3/8	TI-ZMW112-22-06*	TI-ZMW212-22-06*	TI-ZMW312-22-06*
M24x1.5	1/2	TI-ZMW112-24-08*	TI-ZMW212-24-08*	TI-ZMW312-24-08*
M30x2	5/8	TI-ZMW112-30-10*	TI-ZMW212-30-10*	TI-ZMW312-30-10*
M36x2	3/4	TI-ZMW112-36-12*	TI-ZMW212-36-12*	TI-ZMW312-36-12*
M42x2	1	TI-ZMW112-42-16*	TI-ZMW212-42-16*	TI-ZMW312-42-16*
M52x2	1.1/4	TI-ZMW112-52-20*	TI-ZMW212-52-20*	TI-ZMW312-52-20*

* - available in AISI 316 steel

HIGH PRESSURE - fittings

Standard fittings - Z type


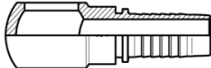

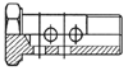
TI-Z STANDARD		Metric standpipe, light duty		
		BEL	BEL 90	BEL 45
pipe O.D. [mm]	hose I.D. [inch]			
		code	code	code
6	3/16	TI-ZMR111-06-03*	TI-ZMR211-06-03*	TI-ZMR311-06-03*
6	1/4	TI-ZMR111-06-04*	TI-ZMR211-06-04*	TI-ZMR311-06-04*
8	1/4	TI-ZMR111-08-04*	TI-ZMR211-08-04*	TI-ZMR311-08-04*
8	5/16	TI-ZMR111-08-05*	TI-ZMR211-08-05*	TI-ZMR311-08-05*
8	3/8	TI-ZMR111-08-06*	-	-
10	5/16	TI-ZMR111-10-05*	TI-ZMR211-10-05*	TI-ZMR311-10-05*
10	3/8	TI-ZMR111-10-06*	TI-ZMR211-10-06*	TI-ZMR311-10-06*
12	3/8	TI-ZMR111-12-06*	TI-ZMR211-12-06*	TI-ZMR311-12-06*
12	1/2	TI-ZMR111-12-08*	TI-ZMR211-12-08*	TI-ZMR311-12-08*
15	3/8	TI-ZMR111-15-06*	TI-ZMR211-15-06*	TI-ZMR311-15-06*
15	1/2	TI-ZMR111-15-08*	TI-ZMR211-15-08*	TI-ZMR311-15-08*
18	1/2	TI-ZMR111-18-08*	TI-ZMR211-18-08*	TI-ZMR311-18-08*
18	5/8	TI-ZMR111-18-10*	TI-ZMR211-18-10*	TI-ZMR311-18-10*
18	3/4	TI-ZMR111-18-12*	-	-
22	5/8	TI-ZMR111-22-10*	TI-ZMR211-22-10*	TI-ZMR311-22-10*
22	3/4	TI-ZMR111-22-12*	TI-ZMR211-22-12*	TI-ZMR311-22-12*
28	1	TI-ZMR111-28-16*	TI-ZMR211-28-16*	TI-ZMR311-28-16*
35	1.1/4	TI-ZMR111-35-20*	TI-ZMR211-35-20*	TI-ZMR311-35-20*
42	1.1/2	TI-ZMR111-42-24*	TI-ZMR211-42-24*	TI-ZMR311-42-24*

TI-Z STANDARD		Metric standpipe, heavy duty		
		BES	BES 90	BES 45
pipe O.D. [mm]	hose I.D. [inch]			
		code	code	code
8	1/4	TI-ZMR112-08-04*	TI-ZMR212-08-04*	TI-ZMR312-08-04*
10	1/4	TI-ZMR112-10-04*	TI-ZMR212-10-04*	TI-ZMR312-10-04*
12	1/4	TI-ZMR112-12-04*	TI-ZMR212-12-04*	TI-ZMR312-12-04*
12	5/16	TI-ZMR112-12-05*	TI-ZMR212-12-05*	TI-ZMR312-12-05*
14	3/8	TI-ZMR112-14-06*	TI-ZMR212-14-06*	TI-ZMR312-14-06*
14	1/2	TI-ZMR112-14-08*	TI-ZMR212-14-08*	TI-ZMR312-14-08*
16	1/2	TI-ZMR112-16-08*	TI-ZMR212-16-08*	TI-ZMR312-16-08*
20	5/8	TI-ZMR112-20-10*	TI-ZMR212-20-10*	TI-ZMR312-20-10*
20	3/4	TI-ZMR112-20-12*	TI-ZMR212-20-12*	TI-ZMR312-20-12*
25	3/4	TI-ZMR112-25-12*	TI-ZMR212-25-12*	TI-ZMR312-25-12*
25	1	TI-ZMR112-25-16*	TI-ZMR212-25-16*	TI-ZMR312-25-16*
30	1	TI-ZMR112-30-16*	TI-ZMR212-30-16*	TI-ZMR312-30-16*
38	1.1/4	TI-ZMR112-38-20*	TI-ZMR212-38-20*	TI-ZMR312-38-20*
38	1.1/2	TI-ZMR112-38-24	TI-ZMR212-38-24	TI-ZMR312-38-24

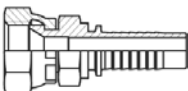
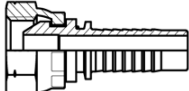
* - available in AISI 316 steel

HIGH PRESSURE - fittings

Standard fittings - Z type



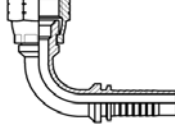
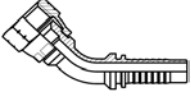
TI-Z STANDARD		BANJO metric			
		copper washer	RNM	bolt	double bolt
thread size [mm]	hose I.D. [inch]				
		code	code	code	code
M10	3/16	TI-UM-10X16	TI-ZMB600-10-03	TI-ZMB610-10X1	TI-ZMB620-10X1
	1/4		TI-ZMB600-10-04		
M12	3/16	TI-UM-12X18	TI-ZMB600-12-03	TI-ZMB610-12X1.5*	TI-ZMB620-12X1.5*
	1/4		TI-ZMB600-12-04*		
	5/16		TI-ZMB600-12-05		
M14	3/16	TI-UM-14X20	TI-ZMB600-14-03	TI-ZMB610-14X1.5*	TI-ZMB620-14X1.5*
	1/4		TI-ZMB600-14-04*		
	5/16		TI-ZMB600-14-05		
	3/8		TI-ZMB600-14-06*		
M16	1/4	TI-UM-16X22	TI-ZMB600-16-04	TI-ZMB610-16X1.5*	TI-ZMB620-16X1.5*
	5/16		TI-ZMB600-16-05*		
	3/8		TI-ZMB600-16-06*		
M18	5/16	TI-UM-16X23	TI-ZMB600-18-05	TI-ZMB610-18X1.5*	TI-ZMB620-18X1.5*
	3/8		TI-ZMB600-18-06*		
	1/2		TI-ZMB600-18-08*		
M20	3/8	TI-UM-20X26	TI-ZMB600-20-06	TI-ZMB610-20X1.5	
	1/2		TI-ZMB600-20-08*		
M22	1/2	TI-UM-22X27	TI-ZMB600-22-08*	TI-ZMB610-22X1.5*	TI-ZMB620-22X1.5*
	5/8		TI-ZMB600-22-10		
M26	5/8	TI-UM-26X33	TI-ZMB600-26-10	TI-ZMB610-26X1.5*	TI-ZMB620-26X1.5*
	3/4		TI-ZMB600-26-12*		
M30	3/4	TI-UM-30X36	TI-ZMB600-30-12*	TI-ZMB610-30X1.5*	
	1		TI-ZMB600-30-16		

* - available in AISI 316 steel

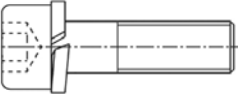
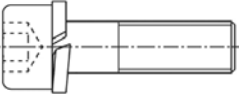
TI-Z STANDARD		Metric thread, reversed cone 60°	
		KOMATSU	DKM
thread size [inch]	hose I.D. [inch]		
		code	code
M10x1	1/4	-	TI-ZMW160-10X1-04
M12x1.5	1/4	-	TI-ZMW160-12-04
M14x1.5	1/4	TI-ZMW150-14-04	TI-ZMW160-14-04
M16x1.5	1/4	-	TI-ZMW160-16-04
	3/8	TI-ZMW150-16-06	-
M18x1.5	1/4	-	TI-ZMW160-18-04
	5/16	-	TI-ZMW160-18-05
	3/8	TI-ZMW150-18-06	-
M20x1.5	3/8	-	TI-ZMW160-20-06
M22x1.5	3/8	-	TI-ZMW160-22-06
	1/2	TI-ZMW150-22-08	-
M24x1.5	1/2	-	TI-ZMW160-24-08
	5/8	TI-ZMW150-24-10	-
M26x1.5	5/8	-	TI-ZMW160-26-10
M30x1.5	3/4	TI-ZMW150-30-12	TI-ZMW160-30-12
M33x1.5	1	TI-ZMW150-33-16	-
M36x1.5	1.1/4	TI-ZMW150-36-20	-
M38x1.5	1	-	TI-ZMW160-38-16
M42x1.5	1.1/2	TI-ZMW150-42-24	-
M45x1.5	1.1/4	-	TI-ZMW160-45-20

HIGH PRESSURE - fittings

Standard fittings - Z type


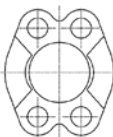
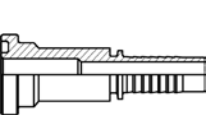
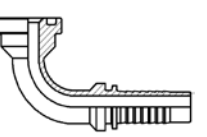
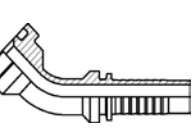
TI-Z STANDARD		JIC thread UNF, 74° cone			
		AGJ	DKJ	DKJ 90	DKJ 45
thread size [inch]	hose I.D. [inch]				
		code	code	code	code
7/16-20	3/16	TI-ZJZ110-07-03*	TI-ZJW110-07-03*	TI-ZJW210-07-03*	TI-ZJW310-07-03*
	1/4	TI-ZJZ110-07-04*	TI-ZJW110-07-04*	TI-ZJW210-07-04*	TI-ZJW310-07-04*
1/2-20	3/16	TI-ZJZ110-08-03*	TI-ZJW110-08-03*	TI-ZJW210-08-03	-
	1/4	TI-ZJZ110-08-04*	TI-ZJW110-08-04*	TI-ZJW210-08-04*	TI-ZJW310-08-04*
	5/16	TI-ZJZ110-08-05*	TI-ZJW110-08-05*	TI-ZJW210-08-05*	TI-ZJW310-08-05*
9/16-18	1/4	TI-ZJZ110-09-04*	TI-ZJW110-09-04*	TI-ZJW210-09-04*	TI-ZJW310-09-04*
	5/16	TI-ZJZ110-09-05*	TI-ZJW110-09-05*	TI-ZJW210-09-05*	TI-ZJW310-09-05*
	3/8	TI-ZJZ110-09-06*	TI-ZJW110-09-06*	TI-ZJW210-09-06*	TI-ZJW310-09-06*
5/8-18	5/16	TI-ZJZ110-10-05	TI-ZJW110-10-05	-	-
	3/8	TI-ZJZ110-10-06	TI-ZJW110-10-06	-	-
3/4-16	5/16	TI-ZJZ110-12-05	TI-ZJW110-12-05	TI-ZJW210-12-05	TI-ZJW310-12-05
	3/8	TI-ZJZ110-12-06*	TI-ZJW110-12-06*	TI-ZJW210-12-06*	TI-ZJW310-12-06*
	1/2	TI-ZJZ110-12-08*	TI-ZJW110-12-08*	TI-ZJW210-12-08*	TI-ZJW310-12-08*
7/8-14	3/8	TI-ZJZ110-14-06*	TI-ZJW110-14-06*	TI-ZJW210-14-06*	TI-ZJW310-14-06*
	1/2	TI-ZJZ110-14-08*	TI-ZJW110-14-08*	TI-ZJW210-14-08*	TI-ZJW310-14-08*
	5/8	TI-ZJZ110-14-10*	TI-ZJW110-14-10*	TI-ZJW210-14-10*	TI-ZJW310-14-10*
	3/4	-	TI-ZJW110-14-12	-	-
1.1/16-16	1/2	TI-ZJZ110-17-08*	TI-ZJW110-17-08*	TI-ZJW210-17-08	TI-ZJW310-17-08
	5/8	TI-ZJZ110-17-10*	TI-ZJW110-17-10*	TI-ZJW210-17-10*	TI-ZJW310-17-10*
	3/4	TI-ZJZ110-17-12*	TI-ZJW110-17-12*	TI-ZJW210-17-12*	TI-ZJW310-17-12*
	1	TI-ZJZ110-17-16*	TI-ZJW110-17-16*	-	-
1.3/16-12	3/4	TI-ZJZ110-19-12	TI-ZJW110-19-12	TI-ZJW210-19-12	TI-ZJW310-19-12
	1	TI-ZJZ110-19-16	TI-ZJW110-19-16	-	-
1.5/16-12	5/8	TI-ZJZ110-21-10	TI-ZJW110-21-10	-	-
	3/4	TI-ZJZ110-21-12*	TI-ZJW110-21-12*	TI-ZJW210-21-12	-
	1	TI-ZJZ110-21-16*	TI-ZJW110-21-16*	TI-ZJW210-21-16*	TI-ZJW310-21-16*
1.5/8-12	1	TI-ZJZ110-26-16*	TI-ZJW110-26-16*	TI-ZJW210-26-16	TI-ZJW310-26-16
	1.1/4	TI-ZJZ110-26-20*	TI-ZJW110-26-20*	TI-ZJW210-26-20*	TI-ZJW310-26-20*
1.7/8-12	1.1/4	TI-ZJZ110-30-20	TI-ZJW110-30-20	TI-ZJW210-30-20	TI-ZJW310-30-20
	1.1/2	TI-ZJZ110-30-24*	TI-ZJW110-30-24*	TI-ZJW210-30-24*	TI-ZJW310-30-24*
2.1/2-12	2	TI-ZJZ110-40-32*	TI-ZJW110-40-32*	TI-ZJW210-40-32*	TI-ZJW310-40-32*

* - available in AISI 316 steel

TI-Z STANDARD	Set of bolts with washers (4 pcs) for SAE flanges, DIN 912, 12.9 grade, black, oil finish			
	for 3000 series		for 6000 series	
flange size [inch]				
	code	size [mm]	code	size [mm]
1/2	TI-ZSK-08X25	M8x25	TI-ZSK-08X30	M8x30
3/4	TI-ZSK-10X30	M10x30	TI-ZSK-10X35	M10x35
1			TI-ZSK-12X40	M12x40
1.1/4			TI-ZSK-14X50	M14x50
1.1/2	TI-ZSK-12X35	M12x35	TI-ZSK-16X55	M16x55
2			TI-ZSK-20X70	M20x70
2.1/2	TI-ZSK-12X40	M12x40	TI-ZSK-24X90	M24x90


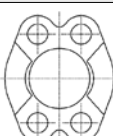
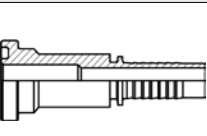
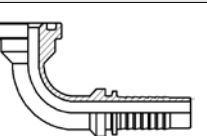
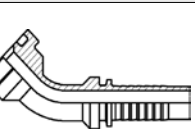
HIGH PRESSURE - fittings

Standard fittings - Z type

TI-Z STANDARD		SAE 3000 flange				
		split	monoblock	SFL	SFL 90	SFL 45
flange size [inch]	hose I.D. [inch]					
		code	code	code	code	code
1/2	1/2	TI-ZSK611-08*	TI-ZSK621-08*	TI-ZSK111-08-08*	TI-ZSK211-08-08*	TI-ZSK311-08-08*
	5/8			TI-ZSK111-08-10	TI-ZSK211-08-10	TI-ZSK311-08-10
5/8	1/2	-	-	TI-ZSK111-10-08K**	TI-ZSK211-10-08K**	TI-ZSK311-10-08K**
	5/8			TI-ZSK111-10-10K**	TI-ZSK211-10-10K**	TI-ZSK311-10-10K**
3/4	1/2	TI-ZSK611-12*	TI-ZSK621-12*	TI-ZSK111-12-08*	TI-ZSK211-12-08*	TI-ZSK311-12-08*
	5/8			TI-ZSK111-12-10*	TI-ZSK211-12-10*	TI-ZSK311-12-10*
	3/4			TI-ZSK111-12-12*	TI-ZSK211-12-12*	TI-ZSK311-12-12*
1	3/4	TI-ZSK611-16*	TI-ZSK621-16*	TI-ZSK111-16-12*	TI-ZSK211-16-12*	TI-ZSK311-16-12*
	1			TI-ZSK111-16-16*	TI-ZSK211-16-16*	TI-ZSK311-16-16*
1.1/4	1	TI-ZSK611-20*	TI-ZSK621-20*	TI-ZSK111-20-16*	TI-ZSK211-20-16*	TI-ZSK311-20-16*
	1.1/4			TI-ZSK111-20-20*	TI-ZSK211-20-20*	TI-ZSK311-20-20*
1.1/2	1.1/4	TI-ZSK611-24*	TI-ZSK621-24*	TI-ZSK111-24-20*	TI-ZSK211-24-20*	TI-ZSK311-24-20*
	1.1/2			TI-ZSK111-24-24*	TI-ZSK211-24-24*	TI-ZSK311-24-24*
2	1.1/2	TI-ZSK611-32*	TI-ZSK621-32*	TI-ZSK111-32-24*	TI-ZSK211-32-24*	TI-ZSK311-32-24*
	2			TI-ZSK111-32-32*	TI-ZSK211-32-32*	TI-ZSK311-32-32*
2.1/2	2	TI-ZSK611-40	TI-ZSK621-40	TI-ZSK111-40-32	TI-ZSK211-40-32	TI-ZSK311-40-32

* - available in AISI 316 steel

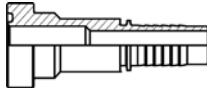
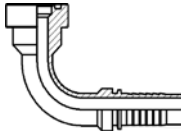
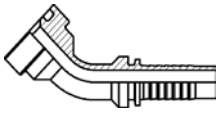
** - KOMATSU

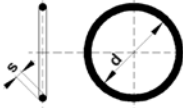
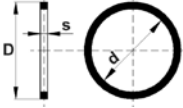
TI-Z STANDARD		SAE 6000 flange				
		split	monoblock	SFS	SFS 90	SFS 45
flange size [inch]	hose I.D. [inch]					
		code	code	code	code	code
1/2	1/2	TI-ZSK612-08*	TI-ZSK622-08*	TI-ZSK112-08-08*	TI-ZSK212-08-08*	TI-ZSK312-08-08*
	5/8			TI-ZSK112-08-10	TI-ZSK212-08-10	TI-ZSK312-08-10
	3/4			TI-ZSK112-08-12	TI-ZSK212-08-12	TI-ZSK312-08-12
3/4	1/2	TI-ZSK612-12*	TI-ZSK622-12*	TI-ZSK112-12-08*	TI-ZSK212-12-08*	TI-ZSK312-12-08*
	5/8			TI-ZSK112-12-10*	TI-ZSK212-12-10*	TI-ZSK312-12-10*
	3/4			TI-ZSK112-12-12*	TI-ZSK212-12-12*	TI-ZSK312-12-12*
1	1	TI-ZSK612-16*	TI-ZSK622-16*	TI-ZSK112-12-16	TI-ZSK212-12-16	TI-ZSK312-12-16
	3/4			TI-ZSK112-16-12*	TI-ZSK212-16-12*	TI-ZSK312-16-12*
1	1	TI-ZSK612-16*	TI-ZSK622-16*	TI-ZSK112-16-16*	TI-ZSK212-16-16*	TI-ZSK312-16-16*
	3/4			TI-ZSK112-16-16*	TI-ZSK212-16-16*	TI-ZSK312-16-16*
1.1/4	1	TI-ZSK612-20*	TI-ZSK622-20*	TI-ZSK112-20-16*	TI-ZSK212-20-16*	TI-ZSK312-20-16*
	1.1/4			TI-ZSK112-20-20*	TI-ZSK212-20-20*	TI-ZSK312-20-20*
1.1/2	1.1/4	TI-ZSK612-24*	TI-ZSK622-24*	TI-ZSK112-24-20*	TI-ZSK212-24-20*	TI-ZSK312-24-20*
	1.1/2			TI-ZSK112-24-24*	TI-ZSK212-24-24*	TI-ZSK312-24-24*
2	1.1/2	TI-ZSK612-32*	TI-ZSK622-32*	TI-ZSK112-32-24*	TI-ZSK212-32-24*	TI-ZSK312-32-24*
	2			TI-ZSK112-32-32*	TI-ZSK212-32-32*	TI-ZSK312-32-32*


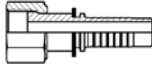
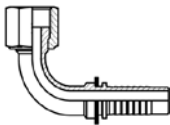
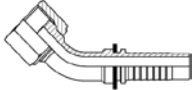
* - available in AISI 316 steel

HIGH PRESSURE - fittings

Standard fittings - Z type

TI-Z STANDARD		SUPER CAT flange		
		SFC	SFC 90	SFC 45
flange size [inch]	hose I.D. [inch]			
		code	code	code
3/4	3/4	TI-ZSK113-12-12	TI-ZSK213-12-12	TI-ZSK313-12-12
1	3/4	TI-ZSK113-16-12	TI-ZSK213-16-12	TI-ZSK313-16-12
	1	TI-ZSK113-16-16	TI-ZSK213-16-16	TI-ZSK313-16-16
1.1/4	1	TI-ZSK113-20-16	TI-ZSK213-20-16	TI-ZSK313-20-16
	1.1/4	TI-ZSK113-20-20	TI-ZSK213-20-20	TI-ZSK313-20-20
1.1/2	1.1/4	TI-ZSK113-24-20	TI-ZSK213-24-20	TI-ZSK313-24-20
	1.1/2	TI-ZSK113-24-24	TI-ZSK213-24-24	TI-ZSK313-24-24

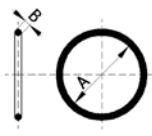
TI-USK		SAE flange seal			
		O-ring (NBR)		flat (polyurethane)	
flange size [inch]					
		code	d x s [mm]	code	D x d x s [mm]
1/2		TI-USK110-08	18.64 x 3.53	TI-USK110-08-PU	25.40 x 17.02 x 2.79
3/4		TI-USK110-12	24.99 x 3.53	TI-USK110-12-PU	31.72 x 23.36 x 2.79
1		TI-USK110-16	32.92 x 3.53	TI-USK110-16-PU	39.62 x 31.24 x 2.79
1.1/4		TI-USK110-20	37.69 x 3.53	TI-USK110-20-PU	44.45 x 36.07 x 2.79
1.1/2		TI-USK110-24	47.22 x 3.53	TI-USK110-24-PU	53.98 x 45.34 x 2.79
2		TI-USK110-32	56.75 x 3.53	TI-USK110-32-PU	63.50 x 54.86 x 2.79

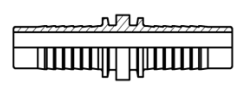
TI-Z STANDARD		ORFS UNF thread, flat sealing			
		AGO	DKO	DKO 90	DKO 45
thread size [inch]	hose I.D. [inch]				
		code	code	code	code
9/16-18	1/4	TI-ZOZ110-09-04*	TI-ZOW110-09-04*	TI-ZOW210-09-04*	TI-ZOW310-09-04*
	5/16	-	TI-ZOW110-09-05	TI-ZOW210-09-05	TI-ZOW310-09-05
	3/8	-	TI-ZOW110-09-06	TI-ZOW210-09-06	TI-ZOW310-09-06
11/16-16	1/4	TI-ZOZ110-11-04*	TI-ZOW110-11-04*	TI-ZOW210-11-04*	TI-ZOW310-11-04*
	5/16	TI-ZOZ110-11-05*	TI-ZOW110-11-05*	TI-ZOW210-11-05*	TI-ZOW310-11-05*
	3/8	TI-ZOZ110-11-06*	TI-ZOW110-11-06*	TI-ZOW210-11-06*	TI-ZOW310-11-06*
13/16-16	3/8	TI-ZOZ110-13-06*	TI-ZOW110-13-06*	TI-ZOW210-13-06*	TI-ZOW310-13-06*
	1/2	TI-ZOZ110-13-08*	TI-ZOW110-13-08*	TI-ZOW210-13-08*	TI-ZOW310-13-08*
1-14	1/2	TI-ZOZ110-16-08*	TI-ZOW110-16-08*	TI-ZOW210-16-08*	TI-ZOW310-16-08*
	5/8	TI-ZOZ110-16-10*	TI-ZOW110-16-10*	TI-ZOW210-16-10*	TI-ZOW310-16-10*
1.3/16-12	1/2	-	TI-ZOW110-19-08*	-	-
	5/8	TI-ZOZ110-19-10	TI-ZOW110-19-10	TI-ZOW210-19-10	TI-ZOW310-19-10
	3/4	TI-ZOZ110-19-12*	TI-ZOW110-19-12*	TI-ZOW210-19-12*	TI-ZOW310-19-12*
1.7/16-12	3/4	-	TI-ZOW110-23-12*	TI-ZOW210-23-12*	TI-ZOW310-23-12*
	1	TI-ZOZ110-23-16*	TI-ZOW110-23-16*	TI-ZOW210-23-16*	TI-ZOW310-23-16*
1.11/16-12	1.1/4	TI-ZOZ110-27-20*	TI-ZOW110-27-20*	TI-ZOW210-27-20*	TI-ZOW310-27-20*
2-12	1.1/2	TI-ZOZ110-32-24*	TI-ZOW110-32-24*	TI-ZOW210-32-24*	TI-ZOW310-32-24*

* - available in AISI 316 steel

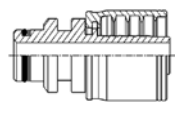
HIGH PRESSURE - fittings

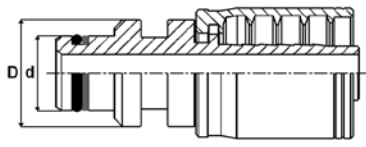
Standard fittings - Z type

TI-Z STANDARD	Seals for ORFS fittings - O-ring (NBR90)	
thread size [inch]		
	code	A x B [mm]
9/16-18	TI-UOZ110-09	7.65 x 1.78
11/16-16	TI-UOZ110-11	9.25 x 1.78
13/16-16	TI-UOZ110-13	12.42 x 1.78
1-14	TI-UOZ110-16	15.60 x 1.78
1.3/16-12	TI-UOZ110-19	18.77 x 1.78
1.7/16-12	TI-UOZ110-23	23.52 x 1.78
1.11/16-12	TI-UOZ110-27	29.87 x 1.78
2-12	TI-UOZ110-32	37.82 x 1.78

TI-Z STANDARD	Connector	
hose I.D. [inch]		
	code	
3/16	TI-ZLL110-03-03	
1/4	TI-ZLL110-04-04*	
5/16	TI-ZLL110-05-05*	
3/8	TI-ZLL110-06-06*	
1/2	TI-ZLL110-08-08*	
5/8	TI-ZLL110-10-10*	
3/4	TI-ZLL110-12-12*	
1	TI-ZLL110-16-16*	

* - available in AISI 316 steel

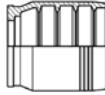
TI-G MINING		STECKO	
connection size [inch]	hose I.D. [inch]	For 2SN hose	For 4SP hose
			
		code	code
1/4	1/4	TI-GST120-04-04-2SN	TI-GST120-04-04-4SP
3/8	3/8	TI-GST120-06-06-2SN	TI-GST120-06-06-4SP
1/2	1/2	TI-GST120-08-08-2SN	TI-GST120-08-08-4SP
3/4	3/4	TI-GST120-12-12-2SN	TI-GST120-12-12-4SP
1	1	TI-GST120-16-16-2SN	TI-GST120-16-16-4SP
1.1/4	1.1/4	TI-GST120-20-20-2SN	TI-GST120-20-20-4SP



TI-G MINING		STECKO - dimensions	
connection size [inch]	hose I.D. [inch]		
		D [mm]	d [mm]
1/4	1/4	15	10
3/8	3/8	20	14
1/2	1/2	24	18
3/4	3/4	29	24
1	1	39	31
1.1/4	1.1/4	46	38

STECKO fittings are delivered as a set with a crimp ferrule.



HIGH PRESSURE - fittings

NON SKIVE fittings - N type

TI-N NON SKIVE		Crimp ferrule	
hose I.D. [inch]			
		code	type of hose
3/4		TI-N4-12	4SP / 4SH / R13 / R15
1		TI-N4-16	4SP / 4SH / R13 / R15
1.1/4		TI-N4-20	4SH
1.1/2		TI-N4-24	4SH
2		TI-N4-32	4SH

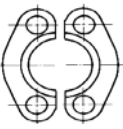
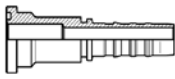
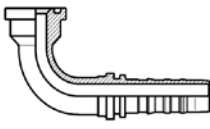
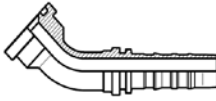
TI-N NON SKIVE		BSP thread, 60° cone, O-ring			
thread size [inch]	hose I.D. [inch]	AGR	DKOR	DKOR 90	DKOR 45
					
		code	code	code	code
3/4	3/4	TI-NBZ110-12-12	TI-NBW110-12-12	TI-NBW210-12-12	TI-NBW310-12-12
1	1	TI-NBZ110-16-16	TI-NBW110-16-16	TI-NBW210-16-16	TI-NBW310-16-16
1.1/4	1	TI-NBZ110-20-16	TI-NBW110-20-16	TI-NBW210-20-16	TI-NBW310-20-16
	1.1/4	TI-NBZ110-20-20	TI-NBW110-20-20	TI-NBW210-20-20	TI-NBW310-20-20
1.1/2	1.1/4	TI-NBZ110-24-20	TI-NBW110-24-20	TI-NBW210-24-20	TI-NBW310-24-20
	1.1/2	TI-NBZ110-24-24	TI-NBW110-24-24	TI-NBW210-24-24	TI-NBW310-24-24
2	2	TI-NBZ110-32-32	TI-NBW110-32-32	TI-NBW210-32-32	TI-NBW310-32-32

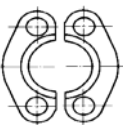
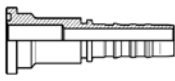
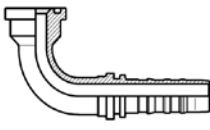
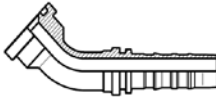
TI-N NON SKIVE		BSPT thread, 60° cone	NPTF thread, 60° cone
thread size [inch]	hose I.D. [inch]	AGR-K	AGN
		code	code
3/4	3/4	TI-NBZ130-12-12	TI-NNZ110-12-12
1	1	TI-NBZ130-16-16	TI-NNZ110-16-16
1.1/4	1	-	TI-NNZ110-20-16
	1.1/4	TI-NBZ130-20-20	TI-NNZ110-20-20
1.1/2	1.1/4	-	TI-NNZ110-24-20
	1.1/2	TI-NBZ130-24-24	TI-NNZ110-24-24
2	2	TI-NBZ130-32-32	TI-NNZ110-32-32

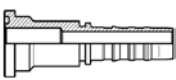
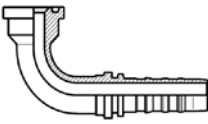
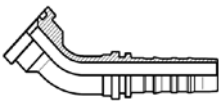
TI-N NON SKIVE		Metric thread, 24° cone, O-ring, heavy duty			
thread size [mm]	hose I.D. [inch]	CES	DKOS	DKOS 90	DKOS 45
					
		code	code	code	code
M30x2	3/4	TI-NMZ112-30-12	TI-NMW122-30-12	TI-NMW222-30-12	TI-NMW322-30-12
M36x2	3/4	TI-NMZ112-36-12	TI-NMW122-36-12	TI-NMW222-36-12	TI-NMW322-36-12
	1	TI-NMZ112-36-16	TI-NMW122-36-16	TI-NMW222-36-16	TI-NMW322-36-16
M42x2	1	TI-NMZ112-42-16	TI-NMW122-42-16	TI-NMW222-42-16	TI-NMW322-42-16
	1.1/4	TI-NMZ112-42-20	TI-NMW122-42-20	TI-NMW222-42-20	TI-NMW322-42-20
M52x2	1.1/4	TI-NMZ112-52-20	TI-NMW122-52-20	TI-NMW222-52-20	TI-NMW322-52-20
	1.1/2	TI-NMZ112-52-24	TI-NMW122-52-24	TI-NMW222-52-24	TI-NMW322-52-24

HIGH PRESSURE - fittings

NON SKIVE fittings - N type

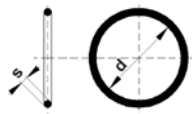
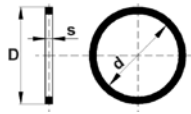
TI-N NON SKIVE		SAE 3000 flange			
			SFL	SFL 90	SFL 45
flange size [inch]	hose I.D. [inch]				
		code	code	code	code
3/4	3/4	TI-ZSK611-12	TI-NSK111-12-12	TI-NSK211-12-12	TI-NSK311-12-12
	1		TI-NSK111-12-16	TI-NSK211-12-16	TI-NSK311-12-16
1	3/4	TI-ZSK611-16	TI-NSK111-16-12	TI-NSK211-16-12	TI-NSK311-16-12
	1		TI-NSK111-16-16	TI-NSK211-16-16	TI-NSK311-16-16
1.1/4	1	TI-ZSK611-20	TI-NSK111-20-16	TI-NSK211-20-16	TI-NSK311-20-16
	1.1/4		TI-NSK111-20-20	TI-NSK211-20-20	TI-NSK311-20-20
1.1/2	1.1/4	TI-ZSK611-24	TI-NSK111-24-20	TI-NSK211-24-20	TI-NSK311-24-20
	1.1/2		TI-NSK111-24-24	TI-NSK211-24-24	TI-NSK311-24-24
2	1.1/2	TI-ZSK611-32	TI-NSK111-32-24	TI-NSK211-32-24	TI-NSK311-32-24
	2		TI-NSK111-32-32	TI-NSK211-32-32	TI-NSK311-32-32
2.1/2	2	TI-ZSK611-40	TI-NSK111-40-32	TI-NSK211-40-32	TI-NSK311-40-32



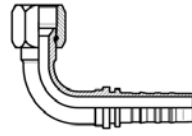
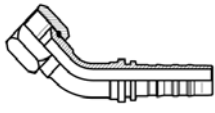
TI-N NON SKIVE		SAE 6000 flange			
			SFS	SFS 90	SFS 45
flange size [inch]	hose I.D. [inch]				
		code	code	code	code
3/4	3/4	TI-ZSK612-12	TI-NSK112-12-12	TI-NSK212-12-12	TI-NSK312-12-12
	1		TI-NSK112-12-16	TI-NSK212-12-16	TI-NSK312-12-16
1	3/4	TI-ZSK612-16	TI-NSK112-16-12	TI-NSK212-16-12	TI-NSK312-16-12
	1		TI-NSK112-16-16	TI-NSK212-16-16	TI-NSK312-16-16
1.1/4	1	TI-ZSK612-20	TI-NSK112-20-16	TI-NSK212-20-16	TI-NSK312-20-16
	1.1/4		TI-NSK112-20-20	TI-NSK212-20-20	TI-NSK312-20-20
1.1/2	1.1/4	TI-ZSK612-24	TI-NSK112-24-20	TI-NSK212-24-20	TI-NSK312-24-20
	1.1/2		TI-NSK112-24-24	TI-NSK212-24-24	TI-NSK312-24-24
2	1.1/2	TI-ZSK612-32	TI-NSK112-32-24	TI-NSK212-32-24	TI-NSK312-32-24
	2		TI-NSK112-32-32	TI-NSK212-32-32	TI-NSK312-32-32



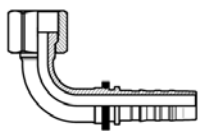
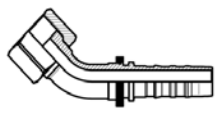
TI-N NON SKIVE		SUPER CAT flange		
		SFS	SFS 90	SFS 45
flange size [inch]	hose I.D. [inch]			
		code	code	code
3/4	3/4	TI-NSK113-12-12	TI-NSK213-12-12	TI-NSK313-12-12
1	3/4	TI-NSK113-16-12	TI-NSK213-16-12	TI-NSK313-16-12
	1	TI-NSK113-16-16	TI-NSK213-16-16	TI-NSK313-16-16
1.1/4	1	TI-NSK113-20-16	TI-NSK213-20-16	TI-NSK313-20-16
	1.1/4	TI-NSK113-20-20	TI-NSK213-20-20	TI-NSK313-20-20
1.1/2	1.1/4	TI-NSK113-24-20	TI-NSK213-24-20	TI-NSK313-24-20
	1.1/2	TI-NSK113-24-24	TI-NSK213-24-24	TI-NSK313-24-24
2	2	TI-NSK113-32-32	TI-NSK213-32-32	TI-NSK313-32-32

HIGH PRESSURE - fittings

NON SKIVE fittings - N type

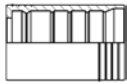
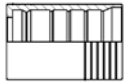
TI-USK	SAE flange seal			
	O-ring (NBR)		flat (polyurethane)	
flange size [inch]				
	code	d x s [mm]	code	D x d x s [mm]
1/2	TI-USK110-08	18.64 x 3.53	TI-USK110-08-PU	25.40 x 17.02 x 2.79
3/4	TI-USK110-12	24.99 x 3.53	TI-USK110-12-PU	31.72 x 23.36 x 2.79
1	TI-USK110-16	32.92 x 3.53	TI-USK110-16-PU	39.62 x 31.24 x 2.79
1.1/4	TI-USK110-20	37.69 x 3.53	TI-USK110-20-PU	44.45 x 36.07 x 2.79
1.1/2	TI-USK110-24	47.22 x 3.53	TI-USK110-24-PU	53.98 x 45.34 x 2.79
2	TI-USK110-32	56.75 x 3.53	TI-USK110-32-PU	63.50 x 54.86 x 2.79

TI-N NON SKIVE		JIC UNF thread, 74° cone			
thread size [inch]	hose I.D. [inch]	AGJ	DKJ	DKJ 90	DKJ 45
					
		code	code	code	code
1.1/16-16	3/4	TI-NJZ110-17-12	TI-NJW110-17-12	TI-NJW210-17-12	TI-NJW310-17-12
1.5/16-12	3/4	TI-NJZ110-21-12	TI-NJW110-21-12	TI-NJW210-21-12	TI-NJW310-21-12
	1	TI-NJZ110-21-16	TI-NJW110-21-16	TI-NJW210-21-16	TI-NJW310-21-16
1.5/8-12	1	TI-NJZ110-26-16	TI-NJW110-26-16	TI-NJW210-26-16	TI-NJW310-26-16
	1.1/4	TI-NJZ110-26-20	TI-NJW110-26-20	TI-NJW210-26-20	TI-NJW310-26-20
1.7/8-12	1.1/2	TI-NJZ110-30-24	TI-NJW110-30-24	TI-NJW210-30-24	TI-NJW310-30-24
2.1/2-12	2	TI-NJZ110-40-32	TI-NJW110-40-32	TI-NJW210-40-32	TI-NJW310-40-32



TI-N NON SKIVE		ORFS UNF thread, flat sealing			
thread size [inch]	hose I.D. [inch]	AGO	DKO	DKO 90	DKO 45
					
		code	code	code	code
1.3/16-12	3/4	TI-NOZ110-19-12	TI-NOW110-19-12	TI-NOW210-19-12	TI-NOW310-19-12
1.7/16-12	1	TI-NOZ110-23-16	TI-NOW110-23-16	TI-NOW210-23-16	TI-NOW310-23-16
1.11/16-12	1.1/4	TI-NOZ110-27-20	TI-NOW110-27-20	TI-NOW210-27-20	TI-NOW310-27-20
2-12	1.1/2	TI-NOZ110-32-24	TI-NOW110-32-24	TI-NOW210-32-24	TI-NOW310-32-24

HIGH PRESSURE - fittings


INTERLOCK fittings - IL type

TI-IL INTERLOCK	Crimp ferrules			
	IL4		IL13	
hose I.D. [inch]				
	code	hose type	code	hose type
3/4	TI-IL4-12*	4SH / R13 / R15	-	-
1	TI-IL4-16*	4SH / R13 / R15	-	-
1.1/4	TI-IL4-20*	4SH	TI-IL13-20*	R13 / R15
1.1/2	TI-IL4-24*	4SH	TI-IL13-24*	R13 / R15
2	TI-IL4-32*	4SH	TI-IL13-32*	R13 / R15

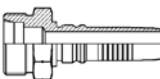
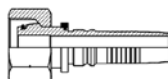
* - available in AISI 316 steel

TI-IL INTERLOCK		BSP thread, 60° cone, O-ring			
thread size [inch]	hose I.D. [inch]	AGR	DKOR	DKOR 90	DKOR 45
					
		code	code	code	code
3/4	3/4	TI-ILBZ110-12-12*	TI-ILBW110-12-12*	TI-ILBW210-12-12*	TI-ILBW310-12-12*
1	1	TI-ILBZ110-16-16*	TI-ILBW110-16-16*	TI-ILBW210-16-16*	TI-ILBW310-16-16*
1.1/4	1.1/4	TI-ILBZ110-20-20*	TI-ILBW110-20-20*	TI-ILBW210-20-20*	TI-ILBW310-20-20*
1.1/2	1.1/2	TI-ILBZ110-24-24*	TI-ILBW110-24-24*	TI-ILBW210-24-24*	TI-ILBW310-24-24*
2	2	TI-ILBZ110-32-32*	TI-ILBW110-32-32*	TI-ILBW210-32-32*	TI-ILBW310-32-32*

* - available in AISI 316 steel

TI-IL INTERLOCK		NPTF thread, 60° cone AGN	
thread size [inch]	hose I.D. [inch]		
		code	
3/4	3/4	TI-ILNZ110-12-12*	
1	1	TI-ILNZ110-16-16*	
1.1/4	1.1/4	TI-ILNZ110-20-20*	
1.1/2	1.1/2	TI-ILNZ110-24-24*	
2	2	TI-ILNZ110-32-32*	

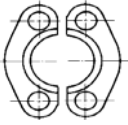
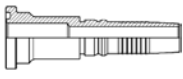
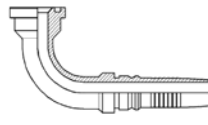
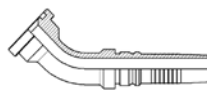
* - available in AISI 316 steel

TI-IL INTERLOCK		Metric thread, 24° cone, O-ring, heavy series			
thread size [inch]	hose I.D. [inch]	CES	DKOS	DKOS 90	DKOS 45
					
		code	code	code	code
M30x2	3/4	TI-ILMZ112-30-12*	TI-ILMW122-30-12*	TI-ILMW222-30-12*	TI-ILMW322-30-12*
M36x2	3/4	TI-ILMZ112-36-12*	TI-ILMW122-36-12*	TI-ILMW222-36-12*	TI-ILMW322-36-12*
M42x2	1	TI-ILMZ112-42-16*	TI-ILMW122-42-16*	TI-ILMW222-42-16*	TI-ILMW322-42-16*
M52x2	1.1/4	TI-ILMZ112-52-20*	TI-ILMW122-52-20*	TI-ILMW222-52-20*	TI-ILMW322-52-20*

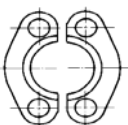
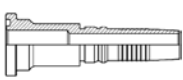
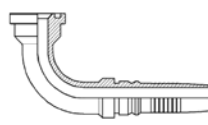
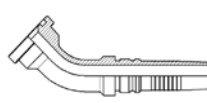
* - available in AISI 316 steel

HIGH PRESSURE - fittings

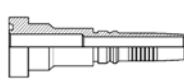
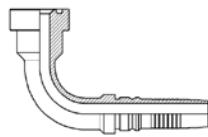
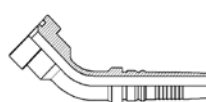
INTERLOCK fittings - IL type

TI-IL INTERLOCK		SAE 3000 flange			
			SFL	SFL 90	SFL 45
flange size [inch]	hose I.D. [inch]				
		code	code	code	code
3/4	3/4	TI-ZSK611-12*	TI-ILSK111-12-12*	TI-ILSK211-12-12*	TI-ILSK311-12-12*
1	3/4	TI-ZSK611-16*	TI-ILSK111-16-12*	TI-ILSK211-16-12*	TI-ILSK311-16-12*
	1		TI-ILSK111-16-16*	TI-ILSK211-16-16*	TI-ILSK311-16-16*
1.1/4	1	TI-ZSK611-20*	TI-ILSK111-20-16*	TI-ILSK211-20-16*	TI-ILSK311-20-16*
	1.1/4		TI-ILSK111-20-20*	TI-ILSK211-20-20*	TI-ILSK311-20-20*
1.1/2	1.1/4	TI-ZSK611-24*	TI-ILSK111-24-20*	TI-ILSK211-24-20*	TI-ILSK311-24-20*
	1.1/2		TI-ILSK111-24-24*	TI-ILSK211-24-24*	TI-ILSK311-24-24*
2	2	TI-ZSK611-32*	TI-ILSK111-32-32*	TI-ILSK211-32-32*	TI-ILSK311-32-32*

* - available in AISI 316 steel

TI-IL INTERLOCK		SAE 6000 flange			
			SFS	SFS 90	SFS 45
flange size [inch]	hose I.D. [inch]				
		code	code	code	code
3/4	3/4	TI-ZSK612-12*	TI-ILSK112-12-12*	TI-ILSK212-12-12*	TI-ILSK312-12-12*
1	3/4	TI-ZSK612-16*	TI-ILSK112-16-12*	TI-ILSK212-16-12*	TI-ILSK312-16-12*
	1		TI-ILSK112-16-16*	TI-ILSK212-16-16*	TI-ILSK312-16-16*
1.1/4	1	TI-ZSK612-20*	TI-ILSK112-20-16*	TI-ILSK212-20-16*	TI-ILSK312-20-16*
	1.1/4		TI-ILSK112-20-20*	TI-ILSK212-20-20*	TI-ILSK312-20-20*
1.1/2	1.1/4	TI-ZSK612-24*	TI-ILSK112-24-20*	TI-ILSK212-24-20*	TI-ILSK312-24-20*
	1.1/2		TI-ILSK112-24-24*	TI-ILSK212-24-24*	TI-ILSK312-24-24*
2	1.1/2	TI-ZSK612-32*	TI-ILSK112-32-24*	TI-ILSK212-32-24*	-
2	2		TI-ILSK112-32-32*	TI-ILSK212-32-32*	TI-ILSK312-32-32*

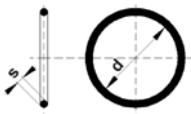
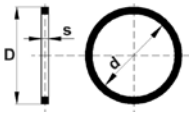
* - available in AISI 316 steel

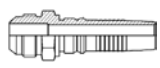
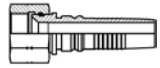
TI-IL INTERLOCK		SUPER CAT flange		
		SFC	SFC 90	SFC 45
flange size [inch]	hose I.D. [inch]			
		code	code	code
3/4	3/4	TI-ILSK113-12-12*	TI-ILSK213-12-12*	TI-ILSK313-12-12*
1	3/4	TI-ILSK113-16-12*	TI-ILSK213-16-12*	TI-ILSK313-16-12*
	1	TI-ILSK113-16-16*	TI-ILSK213-16-16*	TI-ILSK313-16-16*
1.1/4	1	TI-ILSK113-20-16*	TI-ILSK213-20-16*	TI-ILSK313-20-16*
	1.1/4	TI-ILSK113-20-20*	TI-ILSK213-20-20*	TI-ILSK313-20-20*
1.1/2	1.1/4	TI-ILSK113-24-20*	TI-ILSK213-24-20*	TI-ILSK313-24-20*
	1.1/2	TI-ILSK113-24-24*	TI-ILSK213-24-24*	TI-ILSK313-24-24*

* - available in AISI 316 steel

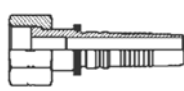
HIGH PRESSURE - fittings

INTERLOCK fittings - IL type

TI-USK	SAE flange seal			
	O-ring (NBR)		flat (polyurethane)	
flange size [inch]				
	code	d x s [mm]	code	D x d x s [mm]
3/4	TI-USK110-12	24.99 x 3.53	TI-USK110-12-PU	31.72 x 23.36 x 2.79
1	TI-USK110-16	32.92 x 3.53	TI-USK110-16-PU	39.62 x 31.24 x 2.79
1.1/4	TI-USK110-20	37.69 x 3.53	TI-USK110-20-PU	44.45 x 36.07 x 2.79
1.1/2	TI-USK110-24	47.22 x 3.53	TI-USK110-24-PU	53.98 x 45.34 x 2.79
2	TI-USK110-32	56.75 x 3.53	TI-USK110-32-PU	63.50 x 54.86 x 2.79

TI-IL INTERLOCK		JIC UNF thread, 74° cone			
thread size [inch]	hose I.D. [inch]	AGJ	DKJ	DKJ 90	DKJ 45
					
		code	code	code	code
1.1/16-12	3/4	TI-ILJZ110-17-12*	TI-ILJW110-17-12*	TI-ILJW210-17-12*	TI-ILJW310-17-12*
1.5/16-12	1	TI-ILJZ110-21-16*	TI-ILJW110-21-16*	TI-ILJW210-21-16*	TI-ILJW310-21-16*
1.5/8-12	1.1/4	TI-ILJZ110-26-20*	TI-ILJW110-26-20*	TI-ILJW210-26-20*	TI-ILJW310-26-20*
1.7/8-12	1.1/2	TI-ILJZ110-30-24*	TI-ILJW110-30-24*	TI-ILJW210-30-24*	TI-ILJW310-30-24*
2.1/2-12	2	TI-ILJZ110-40-32*	TI-ILJW110-40-32*	TI-ILJW210-40-32*	TI-ILJW310-40-32*



* - available in AISI 316 steel

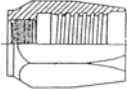
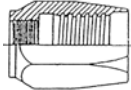
TI-IL INTERLOCK		ORFS UNF thread, flat sealing		
thread size [inch]	hose I.D. [inch]	AGO	DKO 90	DKO 45
				
		code	code	code
1.3/16-12	3/4	TI-ILOW110-19-12*	TI-ILOW210-19-12*	TI-ILOW310-19-12*
1.7/16-12	1	TI-ILOW110-23-16*	TI-ILOW210-23-16*	TI-ILOW310-23-16*
1.11/16-12	1.1/4	TI-ILOW110-27-20*	TI-ILOW210-27-20*	TI-ILOW310-27-20*
2-12	1.1/2	TI-ILOW110-32-24*	TI-ILOW210-32-24*	TI-ILOW310-32-24*

* - available in AISI 316 steel

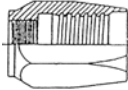
HIGH PRESSURE - fittings

Reusable fittings - S type

TI-S REUSABLE	Ferrules for non-skived rubber hoses			
hose I.D. [inch]				
	code	hose type	code	hose type
3/16	TI-S1T-03	1SN	-	2SN
1/4	TI-S1T-04		TI-S2T-04	
5/16	TI-S1T-05		TI-S2T-05	
3/8	TI-S1T-06		TI-S2T-06	
1/2	TI-S1T-08		TI-S2T-08	
5/8	TI-S1T-10		TI-S2T-10	
3/4	TI-S1T-12		TI-S2T-12	
1	TI-S1T-16		TI-S2T-16	
1.1/4	TI-S1T-20		-	
1.1/2	TI-S1T-24		-	

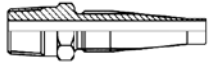
TI-S REUSABLE	Ferrules for thermoplastic hoses			
hose I.D. [inch]				
	code	hose type	code	hose type
5/32	-	MT1 / MTH1	TI-SOL5-025*	OL5 / VE5 (4x8 mm)
3/16	-		TI-SOL5-03	OL5 / VE5
1/4	TI-SMT1-04		TI-SOL5-04	
5/16	TI-SMT1-05			
3/8	TI-SMT1-06			
1/2	TI-SMT1-08			

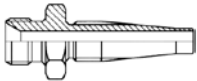
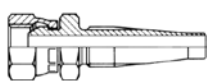
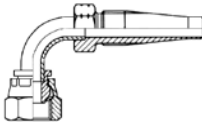
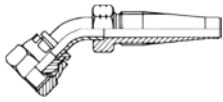
* - only for 4x8 mm hoses.

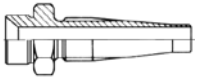
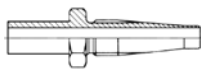
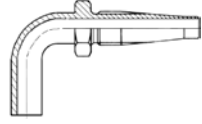
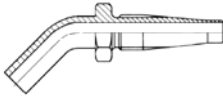
TI-S REUSABLE	Ferrules for thermoplastic hoses	
hose I.D. [inch]		
	code	hose type
3/16	TI-SR7-03	SAE100R7 / MT1 / MTH1
1/4	TI-SR7-04	SAE100R7
	TI-SR7-04M	OL7M / VE7M
5/16	TI-SR7-05	SAE100R7
3/8	TI-SR7-06	
1/2	TI-SR7-08	
5/8	TI-SR7-10	
3/4	TI-SR7-12	
1	TI-SR7-16	

HIGH PRESSURE - fittings

Reusable fittings S type

TI-S REUSABLE		BSPT thread, 60° cone AGR-K	
thread size [inch]	hose I.D. [inch]		
		code	
1/8	3/16	TI-SBZ130-02-03	
1/4	1/4	TI-SBZ130-04-04	
3/8	5/16	TI-SBZ130-06-05	
	3/8	TI-SBZ130-06-06	
1/2	1/2	TI-SBZ130-08-08	
3/4	5/8	TI-SBZ130-12-10	
	3/4	TI-SBZ130-12-12	
1	1	TI-SBZ130-16-16	

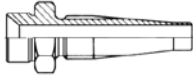
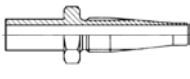
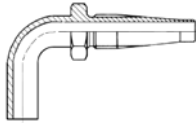
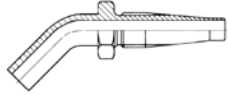
TI-S REUSABLE		BSP thread, 60° cone			
thread size [inch]	hose I.D. [inch]	AGR	DKR	DKR 90	DKR 45
					
		code	code	code	code
1/8	5/32	-	TI-SBW110-02-025*	TI-SBW210-02-025*	-
	3/16	TI-SBZ110-02-03	TI-SBW110-02-03	TI-SBW210-02-03	TI-SBW310-02-03
1/4	5/32	-	TI-SBW110-04-025*	TI-SBW210-04-025*	-
	3/16	-	TI-SBW110-04-03	TI-SBW210-04-03	TI-SBW310-04-03
	1/4	TI-SBZ110-04-04	TI-SBW110-04-04	TI-SBW210-04-04	TI-SBW310-04-04
	5/16	-	TI-SBW110-04-05	TI-SBW210-04-05	-
3/8	5/16	TI-SBZ110-06-05	TI-SBW110-06-05	TI-SBW210-06-05	TI-SBW310-06-05
	3/8	TI-SBZ110-06-06	TI-SBW110-06-06	TI-SBW210-06-06	TI-SBW310-06-06
1/2	1/2	TI-SBZ110-08-08	TI-SBW110-08-08	TI-SBW210-08-08	TI-SBW310-08-08
5/8	5/8	TI-SBZ110-10-10	TI-SBW110-10-10	TI-SBW210-10-10	TI-SBW310-10-10
3/4	3/4	TI-SBZ110-12-12	TI-SBW110-12-12	TI-SBW210-12-12	TI-SBW310-12-12
1	1	TI-SBZ110-16-16	TI-SBW110-16-16	TI-SBW210-16-16	TI-SBW310-16-16


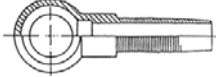

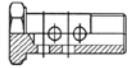
TI-S REUSABLE		Metric standpipe, light series			
pipe O.D. [mm]	hose I.D. [inch]	CEL	BEL	BEL 90	BEL 45
					
		code	code	code	code
4	5/32	-	TI-SMR111-04-025*	TI-SMR211-04-025*	-
	3/16	-	TI-SMR111-04-03	TI-SMR211-04-03	TI-SMR311-04-03
6	1/4	-	TI-SMR111-06-04	TI-SMR211-06-04	TI-SMR311-06-04
8	1/4	TI-SMZ111-14-04	TI-SMR111-08-04	TI-SMR211-08-04	TI-SMR311-08-04
10	5/16	TI-SMZ111-16-05	TI-SMR111-10-05	TI-SMR211-10-05	TI-SMR311-10-05
12	3/8	TI-SMZ111-18-06	TI-SMR111-12-06	TI-SMR211-12-06	TI-SMR311-12-06
15	3/8	-	TI-SMR111-15-06	TI-SMR211-15-06	-
	1/2	TI-SMZ111-22-08	TI-SMR111-15-08	TI-SMR211-15-08	TI-SMR311-15-08
18	5/8	-	TI-SMR111-18-10	TI-SMR211-18-10	TI-SMR311-18-10
22	3/4	-	TI-SMR111-22-12	TI-SMR211-22-12	TI-SMR311-22-12
28	1	-	TI-SMR111-28-16	TI-SMR211-28-16	-


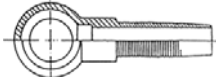

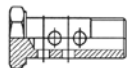
* - only for 4 x 8 mm hoses.

HIGH PRESSURE - fittings

Reusable fittings S type

TI-S REUSABLE		Metric standpipe, heavy series			
		CES	BES	BES 90	BES 45
pipe O.D. [mm]	hose I.D. [inch]				
		code	code	code	code
6	5/32	-	TI-SMR112-06-025*	TI-SMR212-06-025*	-
	3/16	-	TI-SMR112-06-03	TI-SMR212-06-03	TI-SMR312-06-03
8	3/16	-	TI-SMR112-08-03	TI-SMR212-08-03	-
10	1/4	TI-SMZ112-18-04	TI-SMR112-10-04	TI-SMR212-10-04	TI-SMR312-10-04
12	5/16	-	TI-SMR112-12-05	TI-SMR212-12-05	TI-SMR312-12-05
14	3/8	TI-SMZ112-22-06	TI-SMR112-14-06	TI-SMR212-14-06	TI-SMR312-14-06
16	1/2	TI-SMZ112-24-08	TI-SMR112-16-08	TI-SMR212-16-08	TI-SMR312-16-08
20	5/8	-	TI-SMR112-20-10	TI-SMR212-20-10	TI-SMR312-20-10
25	3/4	-	TI-SMR112-25-12	TI-SMR212-25-12	TI-SMR312-25-12
30	1	-	TI-SMR112-30-16	-	-

TI-S REUSABLE		BANJO imperial			
		copper seal	RNR	bolt	double bolt
thread size [inch]	hose I.D. [inch]				
		code	code	code	code
1/8	5/32	TI-UM-10-16	TI-SBB600-02-025*	TI-ZBB610-02	TI-ZBB620-02
	3/16		TI-SBB600-02-03		
	1/4		TI-SBB600-02-04		
1/4	3/16	TI-UM-13-19	TI-SBB600-04-03	TI-ZBB610-04	TI-ZBB620-04
	1/4		TI-SBB600-04-04		
3/8	1/4	TI-UM-17-21	TI-SBB600-06-04	TI-ZBB610-06	TI-ZBB620-06
	5/16		TI-SBB600-06-05		
	3/8		TI-SBB600-06-06		
1/2	3/8	TI-UM-21-26	TI-SBB600-08-06	TI-ZBB610-08	TI-ZBB620-08
	1/2		TI-SBB600-08-08		
3/4	5/8	TI-UM-27-33	TI-SBB600-12-10	TI-ZBB610-12	TI-ZBB620-12
	3/4		TI-SBB600-12-12		

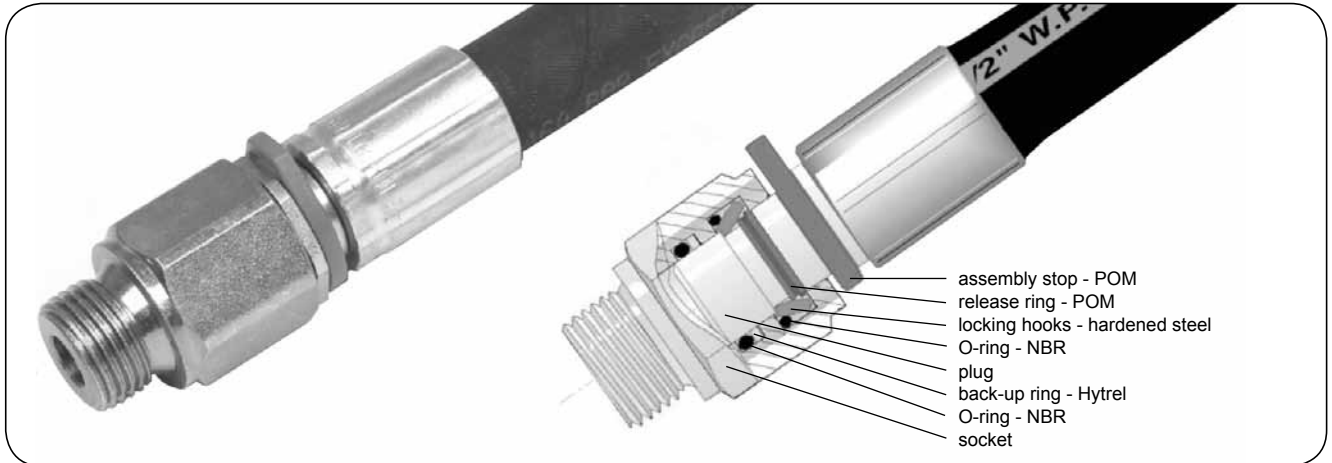
TI-S REUSABLE		BANJO metric			
		copper seal	RNM	bolt	double
thread size [mm]	hose I.D. [inch]				
		code	code	code	code
M10	5/32	TI-UM-10-16	TI-SMB600-10-025*	TI-ZMB610-10X1	TI-ZMB620-10X1
	3/16		TI-SMB600-10-03		
	1/4		TI-SMB600-10-04		
M12	1/4	TI-UM-12-18	TI-SMB600-12-04	TI-ZMB610-12X1,5	TI-ZMB610-12X1,5
M16	5/16	TI-UM-16-22	TI-SMB600-16-05	TI-ZMB610-16X1,5	TI-ZMB610-16X1,5
M18	5/16	TI-UM-18-24	TI-SMB600-18-05	TI-ZMB610-18X1,5	TI-ZMB620-18X1,5
	3/8		TI-SMB600-18-06		
	1/2		TI-SMB600-18-08		
M20	3/8	TI-UM-20-26	TI-SMB600-20-06	TI-ZMB610-20X1,5	TI-ZMB620-20X1,5

* - only for 4 x 8 mm hoses.

HIGH PRESSURE - fittings

Standard fittings Z type - WEO system

WEO system allows to assemble hydraulic hoses without tools or spanners. The only thing you need is a screwdriver. It is an ideal solution in applications with no space to assemble hoses in a traditional way. Moreover, WEO system significantly reduces assembly time. After connection of a plug with a socket, the plug can align itself (swivel movement), what prevents hose kinking during installation. Designed for 1SN, 2SN, 1SC, 2SC hose types.



Working press.: 350 bar (up to 3/4" hose size), 250 bar (for 1" hose size)

Material: Hardened steel

Working temp.: From -30°C up to +100°C

TI-Z STANDARD		plug	90° plug	45° plug	socket
size [inch]	hose I.D. [inch]				
		code	code	code	code
1/4	3/16	CJ-H-147100403	-	-	-
	1/4	CJ-H-147100404	CJ-H-147140404	CJ-H-147120404	CJ-H-148170404
3/8	1/4	CJ-H-147100604	CJ-H-147140604	CJ-H-147120604	-
	5/16	CJ-H-147100605	CJ-H-147140605	CJ-H-147120605	-
	3/8	CJ-H-147100606	CJ-H-147140606	CJ-H-147120606	CJ-H-148170606
1/2	3/8	CJ-H-147100806	CJ-H-147140806	CJ-H-147120806	-
	1/2	CJ-H-147100808	CJ-H-147140808	CJ-H-147120808	CJ-H-148170808
	5/8	CJ-H-147100810	-	-	-
3/4	1/2	CJ-H-147101208	CJ-H-147141208	CJ-H-147121208	-
	5/8	CJ-H-147101210	CJ-H-147141210	CJ-H-147121210	-
	3/4	CJ-H-147101212	CJ-H-147141212	CJ-H-147121212	CJ-H-148171212
1	1	CJ-H-147101616	-	-	CJ-H-148171616


NOTE: to assemble follow the instructions for Z type fittings (IT-4, IT-5, IT-21, IT-22).


WEO size identification


size	1/4"	3/8"	1/2"	3/4"	1"
A [mm]	10	13	16	23	30


HIGH PRESSURE - fittings

Standard fittings Z type - WEO system


Plug - BSP female thread			
			
pressure [bar]	code	size	thread size
350	CJ-H-147210606	3/8"	3/8"
	CJ-H-147210608		1/2"
	CJ-H-147210806	1/2"	3/8"
	CJ-H-147210848		1/2"
	CJ-H-147211208	3/4"	1/2"
	CJ-H-147211212		3/4"


Plug - BSP male thread			
			
pressure [bar]	code	size	thread size
350	CJ-H-147240404	1/4"	1/4"
	CJ-H-147240606	3/8"	3/8"
	CJ-H-147240808	1/2"	1/2"
	CJ-H-147241212	3/4"	3/4"
250	CJ-H-147241616	1"	1"

Plug - UNF (JIC) male thread			
			
pressure [bar]	code	size	thread size
350	CJ-H-147270407	1/4"	7/16"-20
250	CJ-H-147270609	3/8"	9/16"-18
	CJ-H-147270612		3/4"-16
	CJ-H-147270812	1/2"	3/4"-16
350	CJ-H-147270813	3/4"	7/8"-14
200	CJ-H-147271217		1.1/16"-12

WEO dust cap		
		
pressure [bar]	code	size
350	CJ-H-148110400	1/4"
	CJ-H-148110600	3/8"
	CJ-H-148110800	1/2"
250	CJ-H-148111200	3/4"
250	CJ-H-148111600	1"

Socket - BSP male thread, E type seal			
			
pressure [bar]	code	size	thread size
350	CJ-H-148300404	1/4"	1/4"
	CJ-H-148300406		3/8"
	CJ-H-148300606	3/8"	3/8"
	CJ-H-148300608		1/2"
	CJ-H-148300808	1/2"	1/2"
	CJ-H-148300812		3/4"
	CJ-H-148301212	3/4"	3/4"
	CJ-H-148301216		1"
250	CJ-H-148301616	1"	1"

Socket - BSP male thread			
			
pressure [bar]	code	size	thread size
350	CJ-H-148100404	1/4"	1/4"
	CJ-H-148100606	3/8"	3/8"
	CJ-H-148100808	1/2"	1/2"
	CJ-H-148101212	3/4"	3/4"
250	CJ-H-148101616	1"	1"

Socket cap		
		
pressure [bar]	code	size
350	CJ-H-147230400	1/4"
	CJ-H-147230600	3/8"
	CJ-H-147230800	1/2"
	CJ-H-147231200	3/4"
250	CJ-H-147231600	1"