



**BUREAU
VERITAS**

TYPE APPROVAL CERTIFICATE

N°VPC-ISO10380-TC-TFL-004-JPN Rev.1

Bureau Veritas Japan, acting as third party inspection body, attests that the design type of an item of corrugated metal hose and hose assemblies identified hereunder has been examined against ISO 10380: 2012 and found to satisfy the provisions of the standard which apply to it.

Manufacturer (name): TOFLE CO.,INC.
TOFLE CO.,INC. / 1-6-16, Honmachi, Chuo-ku, Osaka, Japan
TOFLE OMEGA FLEX CO.,INC. /
886-1, Kawakami Aza Shiragami, Hagi city, Yamaguchi, 758-0141 Japan.

Address: MITSUWA WELDTECH CO.,INC. /
179-1, Chishirocho, Moriyama, Shiga 524-0034 JAPAN,

Trading Name - Mark TOFLE CO.,INC.

Equipment description: Corrugated metal hoses and hose assemblies (see Annex)

Identification of the approved design type(s) See annex

Versions covered by the approved design type(s) (where applicable) N/A initial

Conditions for validity Initial (Type SA-SD (3))

This certificate, which is valid for 5 years and renewable upon request, is valid, unless changes in the state of the art can challenge the approved design type, until (dd/mm/yyyy): 01/10/2030

This certificate shall be deemed to be void and the manufacturer shall alone bear any consequences pursuant to its use, in case of modification on design type of the equipment or changes in the state of the art, where this may affect conformity with the requirements of the standard or the prescribed conditions for use of the equipment, and generally where the manufacturer fails in particular to comply with any of his obligations under ISO 10380 and Certification Condition which Manufacturer and Bureau Veritas agreed.

Other information (where applicable) Type Approval Test was conducted at TOFLE OMEGA FLEX for Type SA-SD (3)
TCF No.5

For the activity carried out for the issuance of the present certificate, Bureau Veritas Japan took as reference the following manufacturer's technical book

Existence of an annex to the Type approval certificate N /A
Free text/ référence du document

Date of examination (dd/mm/yyyy): 29/09-01/10/2025
Surveyor: Keijiro.Miyazono

| Made at | On (dd/mm/yyyy) | Approved and Recorded in | Signed by | Signature |
|----------|-----------------|--------------------------|------------------|-----------|
| Yokohama | 02/10/2025 | JAPAN | Kiejiro Miyazono | |

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This revision supersedes certificate Initial

Revision : VPC-ISO10380-TC-TFL-004-JPN Rev.0



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N°VPC-ISO10380-TC-TFL-004-JPN Rev.1 List of the relevant parts of the technical documentation


Test Reports :No.D-4652

Drawings: VNW800088-B, VNW800089-B, VNW800090-B, VNW800091-B,

corrugated metal hose certified to ISO10380

TOFLE TOFLE CO.,INC.

Tube Type

| | | |
|-------------------------------|--------------------------|---|
| Code address | S A - S D (3) | sketch  Structure: Annular type |
| Descriptions | Super Annular (Standard) | |
| Materials | SUS316L, SUS321 | |
| Size | 3 A ~ 10 A | |
| max/min allowable temperature | 0 °C ~ 20 °C | |

Applicable product and Fittings Type

| | | DN | 3A | 4A | 5A | 6A | 8A | 10A |
|----------------|---|----------|----------|----------|----------|----------|----------|----------|
| | | PN (bar) | 20.0 bar | 20.0 bar | 20.0 bar | 10.0 bar | 10.0 bar | 10.0 bar |
| Number of form | P E L | | | | | | | |
| Code address | | | | | | | | |
| sketch |  | | ○ | ○ | ○ | ○ | ○ | ○ |

※ ○ : corrugated metal hose certified to ISO10380

| TS / (20°C)に対する軽減定数) | 3A | 4A | 5A | 6A | 8A | 10A | |
|----------------------|----|----------|----------|----------|----------|----------|----------|
| 20°C | 1 | 20.0 bar | 20.0 bar | 20.0 bar | 10.0 bar | 10.0 bar | 10.0 bar |

| 最小曲げ半径 (mm) | 3A | 4A | 5A | 6A | 8A | 10A | |
|-------------|----|----|----|----|----|-----|--|
| 固 定 | 20 | 20 | 20 | 15 | 20 | 30 | |
| 繰返し | 60 | 60 | 60 | 80 | 60 | 100 | |

List of the versions covered (where applicable)



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N/A

Annex to the Certificate

N°VPC-ISO10380-TC-TFL-004-JPN Rev.1

TCF No.5