TECHNICAL REPORT

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Gas cylinders — Compilation of national and international valve stem/gas cylinder neck threads and their identification and marking system

Bouteilles à gaz — Compilation des filetages nationaux et internationaux des queues de robinets/goulots de bouteilles et leurs systèmes d'identification et de marquage

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TR 11364 was prepared by Technical Committee ISO/TC 58, *Gas cylinders*.

Introduction

There is a huge variety of valve to gas cylinder neck thread connections worldwide and ISO cylinders are free to be equipped with any thread according to a recognized thread standard. ISO standards for cylinders and valves require the marking of an identification of the thread on valve and cylinder but there is presently no harmonized marking system.

The purpose of this Technical Report is to list all known cylinder/valve threads currently used and also threads used in the past and to specify a harmonized identification code and marking system for both cylinders and valves. The aim is to reduce the risk of mismatches when valves are fitted to gas cylinders and avoid related safety incidents.

Gas cylinders — Compilation of national and international valve stem/gas cylinder neck threads and their identification and marking system

1 Scope

This Technical Report lists the different valve stem to gas cylinder connection threads currently and historically existing worldwide and provides official coded designations for them. These coded designations will then be available for identification and marking purposes.

It also gives guidance concerning which threads are dimensionally identical and which are interchangeable.

Furthermore, this Technical Report provides guidance for valving procedures when fitting valves to gas cylinders.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13341, *Gas cylinders — Fitting of valves to gas cylinders*

3 Interchangeability of valve/cylinder threads

Threads of recognized standards which are dimensionally identical but have historically been named differently are fully interchangeable.

Experience has shown that the following combination of threads can be safely used in service: 25E valve with T8, T23 and T26 cylinder threads. However, for small steel (less than 5 l water capacity) and aluminium alloy cylinders, users should examine the suitability of the resulting combination for each application in order for them to be interchangeable.

4 Lists of threads

4.1 General

The lists of threads are given in Table 1 for taper threads and Table 2 for parallel threads. The columns in the tables have the following meaning:

Column 1 – Ref. No.

Reference Number of the thread starting with a “T” for taper threads and “P” for parallel threads; followed by a consecutive number in the order as they are listed.

Column 2 – Origin

Country or region of origin of the thread.

Column 3 – Nominal designation of thread

Nominal dimensional identification or designation of the thread given in its originating standard or specification.

Column 4 – Specification or standard

Specification or standard from which the thread originated (see also the bibliography).

Column 5 – Official mark to standard

If the originating standard indicates an official abbreviated identification mark or code, it is given in this column.

Column 6 – Identification and marking

This column indicates an identification code for the relevant thread assigned under this Technical Report which shall in future be used for marking purposes.

NOTE This simplified marking code covers for parallel threads the thread size only and not the geometry of the sealing area or surface.

Column 7 – Note

This column indicates specific equivalency or interchangeability with other threads listed.

Column 8 – Recommended valving procedure

This column indicates the recommendations for fitting valves to gas cylinders, in particular the recommended torque values to be used, which normally follow the requirements of ISO 13341.

4.2 List of threads

See Table 1.

Table 1 — List of national and international valve/gas cylinder threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T1	EU	17E	ISO 11116-1	17E	17E	T1, T2, T3 and T39, T57, T58, T60 and T64 are fully interchangeable threads.	See ISO 13341
T2	EU	E17 con	EN 144-1	E17con		T1, T2, T3 and T39, T57, T58, T60 and T64 are fully interchangeable threads.	
T3	Germany	W19,8×1/14 keg6°52′ (3:25) taper	DIN 477-1			T1, T2, T3, T39, T57, T58, T60 and T64 are fully interchangeable threads.	
T4	EU	25E	EN 629-1 (ISO 10920)	25E	25E	T4, T5, T6,, T38, T59 and T61 are fully interchangeable threads	See ISO 13341
T5	German	W28,8×1/14 keg	DIN 477-1			T4, T5, T6, T38, T58, T59 and T61 are fully interchangeable threads	
T6	UK	W1,000" ×1/14 (3:25) taper	BS 341-1:1991	25T		T4, T5, T6, T38, T58, T59 and T61 are fully interchangeable threads	
T7	Australia	Special taper stem thread, 1.0 inch Nominal, 14 threads per inch, 1 in 8 taper on diameter	AS2473.2-2007	25AU	25AU	T8 is a fully interchangeable thread	AS 2337.1-2004
T8	UK	1 inch Nominal. 14 threads per inch. 1 in 8 taper on diameter	BS 341-1:1962		1"BS	Cylinders with this thread can accept valves with T4, T5, T6, T7 and T38	ISO 13341 may be used for guidance (torque values as for 25E)
T9	German	W31,3×1/14 keg6°52′ (3:25) taper	DIN 477-1		28E	T9, T11, T12, T62 and T63 are fully interchangeable threads	ISO 13341 may be used for guidance
T10	Denmark	W31,3×1/14 (3:25) taper	DS 729			For acetylene only	
T11	Italy	W28,3×1/14"	UNI 11144			T9, T11, T12, T62 and T63 are fully interchangeable threads	
T12	France	28,3 ×1/14taper angle 6°52′	NF E 29-676	(28E)		T9, T11, T12, T62 and T63 are fully interchangeable threads	
T13	UK	W0,6"×1/1410° incl. angle	BS 341-2:1963	(15T)	15T	T13 and T14 are equivalent threads	ISO 13341 may be used for guidance (torque values as for 17E)
T14	Australia	06-15AU(1/14)	AS 2473.2-2007	15AU	15AU	T13 and T14 are fully interchangeable threads	AS 2337.1-2004

Table 1 *(continued)*

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T15	UK	W0,635”×1/18. 8° incl. angle	BS 341-1:1991	(16T)	16T		ISO 13341 may be used for guidance (torque values as for 17E)
T16	UK	SI 0,694”× 1/14. 6° incl. taper angle	BS 341-1:1962 (UK LPGA Code of practice 15 Part 2)	(17T)	17T	For propane	
T17	UK Ireland	W0,715”×1/14. 1:8 incl. taper angle	BS 341-1:1991	18T	18T	T17 and T18 are fully interchangeable threads	ISO 13341 may be used for guidance (torque values as for 17E)
T18	Australia	Special taper stem thread, 0.715 inch Nominal, 14 threads per inch, 1 in 8 taper on diameter	AS 2473.2-2007	18AU	18AU	T17 and T18 are fully interchangeable threads	AS 2337.1-2004
T19	Has been deleted but the following T numbers have not yet changed						
T20	UK	W0,735”×1/14. 1:8 incl. taper angle	BS 341-1:1991	19T	19T		ISO 13341 may be used for guidance (torque values as for 17E)
T21	UK	W1,025” ×1/14. 10° incl. taper angle	BS 341-1:1991	26T	26T		ISO 13341 may be used for guidance (torque values as for 25E)
T22	UK	W1,25”×1/14. 1:8 incl. taper angle	BS 341-1:1991	32T	32T		ISO 13341 may be used for guidance
T23	Sweden	W28, taper 3:24,5	SMS2235	(W28,0)	25S	Cylinders with this thread can accept valves with T4, T5, T6 and T38	ISO 13341 may be used for guidance (torque values as for 25E)
T24	Has been changed in P54 but the following T numbers have not yet changed						
T25	France	16,4×1/14taper angle 8°40′	NF E 29-678	(16F)	16F		

Table 1 *(continued)*

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T26	France	25,8×1/14taper angle 6°38′	NF E 29 680	(25F)	25F	Cylinders with this thread can accept valves with T4, T5, T6 and T38	ISO 13341 may be used for guidance (torque values as for 25E)
T27	France	34×2taper angle 5°	NF E 29 682	(34F)	34F	T27 and T28 are fully interchangeable threads	
T28	Italy	M34×2	UNI 11144		34F	T27 and T28 are fully interchangeable threads	
T29	France	26 ×1/14taper angle 3°34′ (1:16)	NF E 29684	(26F3)	26F3	Thread similar to T40 (3/4”NGT) but not equivalent.	
T30	France	RC1H” 11TPI, taper 3°34′ (1:16)	NF E 03004			Not used	
T31	Japan	W39-12TPI, taper 3:26, profile -. to surface	JIS B 8244	none	39J	For acetylene	
T32	Japan	W20-14TPI, taper 3:26, profile -. to axis	JIS B 8245 V1	None	JV1A	For LPG	
T33	Japan	W20-14TPI taper 3:26, profile -. to surface	JIS B 8246 V1	None	JV1S		
T34	Japan	W28-14TPI taper 3:26, profile -. to axis	JIS B 8245 V2	None	JV2A	For LPG	
T35	Japan	W28-14TPI taper 3:26, profile -. to surface	JIS B 8246 V2	None	JV2S		
T36	Japan	W28-14TPI taper 3:26, profile -. to surface	JIS B 8246 V3	None	JV3S	Short length	
T37	China	W39-12TPI taper 3:25profile -. to surface	GB 8335-1998	Pz39	39C		
T38	China	W27,8-14TPI taper 3:25profile -. To surface	GB 8335-1998	Pz27,8	25E	T4, T5, T6 and T38 are fully interchangeable threads	See ISO 13341
T39	China	W19,2-14TPI taper 3:25 profile -. To surface	GB 8335-1998	Pz19,2	17E	T1, T2 and T3 and T39 are fully interchangeable threads.	See ISO 13341
T40	USA	3/8” –18 NGT	ANSI/CGA V-1	(06N)	06N		Insert handtight then add three turns
T41	USA	½” –14 NGT	ANSI/CGA V-1	(08N)	08N		Insert handtight then add three turns
T42	USA	¾” –14 NGT	ANSI/CGA V-1	(12N)	12N		Insert handtight then add three turns

Table 1 *(continued)*

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T43	USA	1" –11 ½ NGT	ANSI/CGA V-1	(16N)	16N		Insert handtight then add three turns
T44	USA	1 ¼" –11 ½ NGT	ANSI/CGA V-1		20N		Insert handtight then add three turns
T45	USA	¾" –14 SGT	ANSI/CGA V-1	12S	12S		Insert handtight then add three turns
T46	France	Ø 19,3 × 1,81410, 5 % ± 0,5 %		19F(P)		For LPG	
T47	France	Ø 23,2 ou 23,7 × 2,0010 % ± 0,5 %		23F(P)		For LPG	
T48	France	Ø 28,8 × 1,81411, 2 % ± 0,5 %		29F(P)		For LPG	
T49	Korea	W20-14 taper 3/26	KS B 6212 V1				
T50	Korea	W28-14 taper 3/26	KS B 6212 V2				
T51	Korea	W28-14 taper 3/26	KS B 6212 V1				
T52	Korea	W28-14 taper 3/26	KS B 6212 V2				
T53	Korea	W28-14 taper 3/26	KS B 6212 V3				
T54	Korea	W39-12 taper 3/26	KS B 6215				
T55	Korea	W38-12 taper 3/26	KS B 6219 N3-S			Profile perpendicular to surface	
T56	Korea	W38-12 taper 3/26	KS B 6219 N3-A			Profile perpendicular to axis	
T57	Austria	E 17 con (W 19,8)	ÖNORM EN 144-1:1992	E 17 con	17E	Breathing apparatus T1, T2, T3, T39, T57, T58, T60 and T64 are fully interchangeable threads	
T58	Austria	E 17 con (W 19,8)	ÖNORM EN 144-1:2005	E 17 con	17E	Breathing apparatus T1, T2, T3, T39, T57, T58, T60 and T64 are fully interchangeable threads	
T59	Austria	25 E (W 28,8)	ÖNORM EN 629-1:1996	25 E	25 E	T4, T5, T6, T38, T57, T58, T59 and T61 are fully interchangeable threads	

Table 1 *(continued)*

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T60	Austria	W 19,8 × 1/14 keg.	ÖNORM M 7390-2:1985	-	17E	T1, T2, T3, T39, T57, T58, T60 and T64 are fully interchangeable threads	
T61	Austria	W 28,8 × 1/14 keg.	ÖNORM M 7390-2:1985	-	25E	T4, T5, T6, T38, T58, T59 and T61 are fully interchangeable threads	
T62	Austria	W 31,3 × 1/14 keg.	ÖNORM M 7390-2:1985	-	28E	Acetylene only T9, T11, T12, T62 and T63 are fully interchangeable threads	
T63	Austria	W 31,3 × 1/14 keg. (28E)	ÖNORM M 7390-7:2009	28 E	28E	Acetylene only T9, T11, T12, T62 and T63 are fully interchangeable threads	
T64	Austria	17 E (W 19,8)	ÖNORM ISO 11116-1:2000	17 E	17E	T1, T2, T3, T39, T57, T58, T60 and T64 are fully interchangeable threads	
P1	EU	M18×1,5	ISO 15245:2001	18P	18P	P1, P2, P42, P45, P47, P49 and P52 have fully interchangeable thread size	See ISO 13341
P2	EU	M18×1,5	EN 144-1:2005	M18	M18	P1, P2, P42, P45, P47, P49 and P52 have fully interchangeable thread size	
P3	EU	M25×2	ISO 15245:2001	25P	25P	P3, P4, P5, P43, P46, P48, P50 and P53 have fully interchangeable thread size	See ISO 13341
P4	EU	M25×2	EN 144-1:2005	M25	M25	P3, P4, P5, P43, P46, P48, P50 and P53 have fully interchangeable thread size	
P5	EU	M25×2	DIN 477-6	M25	M25	P3, P4, P5, P43, P46, P48, P50 and P53 have fully interchangeable thread size	
P6	EU	M30×2	ISO 15245:2001	30P	30P	P6, P44 and P51 have fully interchangeable thread size	See ISO 13341
P7	Japan	1/2-20UNF	JIS B8246 (JIS B0208, ISO 263, ANSI B1.1)		UNF8	P7 and P8 have fully interchangeable thread size	

Table 1 *(continued)*

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
P8	USA	1/2-20UNF	ANSI/ASME B1.1	U8			
P9	Japan	5/8-18UNF	JIS B8246 (JIS B0208, ISO 263, ANSI B1.1)		UNF10	P9, P10 and P11 have fully interchangeable thread size	
P10	USA	5/8-18UNF	ANSI/ASME B1.1	U10			
P11	UK	5/8”-18 UNF	BS 1580:1962				
P12	Japan	3/4-16UNF	JIS B8246 (JIS B0208, ISO 263, ANSI B1.1)		UNF12	P12, P13 and P14 have fully interchangeable thread size	
P13	UK	3/4”-16UNF	BS 1580:1962				
P14	USA	3/4-16UNF	ANSI/ASME B1.1	U12			
P15	Japan	7/8-14UNF	JIS B8246 (JIS B0208, ISO 263, ANSI B1.1)		UNF14	P15 and P16 have fully interchangeable thread size	
P16	USA	7/8-14UNF	ANSI/ASME B1.1	U14			
P17	Japan	1 1/8-12UNF	JIS B8246 (JIS B0208, ISO 263, ANSI B1.1)		UNF18	P17 and P18 have fully interchangeable thread size	
P18	USA	1 1/8-12UNF	ANSI/ASME B1.1	U18			
P19	Japan	3/4-14NPSM	JIS B8246 (ANSI B1.20.1)		NPS12	P19 and P20 have fully interchangeable thread size	
P20	USA	3/4-14NPSM	ANSI/ASME B1.20.1	SP12			
P21	UK	¼” BSP	BS 2779:1986		BSP04		
P22	UK	M14 × 1.5 ISO	BS 3643:1981		M14		
P23	UK	1-7/8” - 12 UNS 2B	BS 1580:1962		UNS30		
P24	UK	1-5/8”-12 UNS	BS 1580:1962		UNS26		
P25	USA	2-12UN-2B	ANSI/ASME B1.1		UN32		
P26	USA	3-12UN-2B	ANSI/ASME B1.1		UN48		
P27	USA	3 1/2-12UN-2B	ANSI/ASME B1.1		UN56		
P28	Special Application	G ¾”	ISO 228 (external or internal)		G12		

Table 1 *(continued)*

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
P29	Special Application	G1"	ISO 228 (external or internal)		G16		
P30	Special Application	G1 ¼"	ISO 228 (external or internal)		G20		
P31	Special Application	G1 ½"	ISO 228 (external or internal)		G24		
P32	Special Application	G2"	ISO 228 (external or internal)		G32		
P33	Special Application	1 5/8-12UNJ-3B	ISO 3161		UNJ26		
P34	Special Application	2 1/2-12UN-2A(or 2B)	ANSI/ASME B1.1		UN40		
P35	Special Application	M50×2 ext.	DIN 13		M50	Thread size fully interchangeable to P39	
P36	Special Application	3.1/4" × 8UN - 2B	BS 1580		UN52		
P37	Special Application	4.1/2" x 8UN - 2B	BS 1580		UN72		
P38	Special Application	6.1/2" × 8UN - 2B	BS 1580		UN104		
P39	Special Application	M50×2	ISO 965		M50*	Thread size fully interchangeable to P35	
P40	Special Application	M86×3	ISO 965		M86		
P41	Special Application	M68×2	ISO 965		M68		
P42	UK	M18×1.5-6H	BS 341 (1991)	18P	18P	P1, P2, P42, P45, P47, P49 and P52 have fully interchangeable thread size	
P43	UK	M25×2.0-6H	BS 341 (1991)	25P	25P	P3, P4, P5, P43, P46, P48, P50 and P53 have fully interchangeable thread size	
P44	UK	M30×2.0-6H	BS 341 (1991)	30P	30P	P6 and P44 have equivalent thread size	

Table 1 *(continued)*

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
P45	Austria	M 18 × 1,5	ÖNORM EN 144-1:1992	M 18 x 1,5	18P	Breathing apparatus P1, P2, P42, P45, P47, P49 and P52 have fully interchangeable thread size	
P46	Austria	M 25 × 2	ÖNORM EN 144-1:1992	M 25 x 2	25P	Breathing apparatus P3, P4, P5, P43, P46, P48 P50 and P53 have fully interchangeable thread size	
P47	Austria	M 18 × 1,5	ÖNORM EN 144-1:2005	M 18	18P	Breathing apparatus P1, P2, P42, P45, P47, P49 and P52 have fully interchangeable thread size	
P48	Austria	M 25 × 2	ÖNORM EN 144-1:2005	M 25	25P	Breathing apparatus P3, P4, P5, P43, P46, P48, P50 and P53 have fully interchangeable thread size	
P49	Austria	M 18 × 1,5	ÖNORM ISO 15245-1:2003	18 P	18P	P1, P2, P42, P45, P47, P49 and P52 have fully interchangeable thread size	
P50	Austria	M 25 × 2	ÖNORM ISO 15245-1:2003	25 P	25 P	P3, P4, P5, P43, P46, P48, P50 and P53 have fully interchangeable thread size	
P51	Austria	M 30 × 2	ÖNORM ISO 15245-1:2003	30 P	30P	P6, P44 and P51 have fully interchangeable thread size	
P52	Austria	M 18 × 1,5	ÖNORM M 7390-5:1987	-	18P	Breathing apparatus P1, P2, P42, P45, P47, P49 and P52 have fully interchangeable thread size	
P53	Austria	M 25 × 2	ÖNORM M 7390-5:1987	-	25P	Breathing apparatus P3, P4, P5, P43, P46, P48, P50 and P53 have fully interchangeable thread size	
P54	Australia	Special parallel stem thread, Nominal thread size ¾" NGS	AS 2473.2-2007		¾ NGS		AS 2337-1-2004

4.3 Tables of threads listed by country

See Tables 2 to 13.

Table 2 — Australian threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T7	Australia	W1,000" ×1/146°52′ (3:25) taper	Draft AS 2473.2-2007	(25AU)		T4, T5, T6, T7 and T38 are equivalent threads	
T14	Australia	W0,6"×1/1410° incl. angle	Draft AS 2473.2-2007	(15AU)			
T18	Australia	W0,715"×1/147°7′ (1:8) taper	Draft AS 2473.2-2007	(18AU)			
T19	Australia	0,715"× 1/147°7′ (1:8) taper	AS 2473 - 1996				
T24	Australia	¾" NGS	AS 2473-1990		¾"NGS		

Table 3 — Austrian threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T10	Austria	W31,3×1/14 con6°52′ (3:25) taper	ÖNORM M7390-1&2				
T57	Austria	E 17 con (W 19,8)	ÖNORM EN 144-1:1992	E 17 con		Breathing apparatus	
T58	Austria	E 17 con (W 19,8)	ÖNORM EN 144-1:2005	E 17 con		Breathing apparatus	
T59	Austria	25 E (W 28,8)	ÖNORM EN 629-1:1996	25 E			
T64	Austria	17 E (W 19,8)	ÖNORM ISO 11116-1:2000	17 E			
T61	Austria	W 28,8 × 1/14 keg.	ÖNORM M 7390-2:1985	-			
T62	Austria	W 31,3 × 1/14 keg.	ÖNORM M 7390-2:1985	-		Acetylene only	
T63	Austria	W 31,3 × 1/14 keg. (28E)	ÖNORM M 7390-7:2009	28 E		Acetylene only	
T60	Austria	W 19,8 × 1/14 keg.	ÖNORM M 7390-2:1985	-			
P45	Austria	M 18 × 1,5	ÖNORM EN 144-1:1992	M 18 x 1,5		Breathing apparatus	
P46	Austria	M 25 × 2	ÖNORM EN 144-1:1992	M 25 x 2		Breathing apparatus	
P47	Austria	M 18 × 1,5	ÖNORM EN 144-1:2005	M 18		Breathing apparatus	
P48	Austria	M 25 × 2	ÖNORM EN 144-1:2005	M 25		Breathing apparatus	
P49	Austria	M 18 × 1,5	ÖNORM ISO 15245-1:2003	18 P			
P50	Austria	M 25 × 2	ÖNORM ISO 15245-1:2003	25 P			
P51	Austria	M 30 × 2	ÖNORM ISO 15245-1:2003	30 P			
P52	Austria	M 18 × 1,5	ÖNORM M 7390-5:1987	-		Breathing apparatus	
P53	Austria	M 25 × 2	ÖNORM M 7390-5:1987	-		Breathing apparatus	

Table 4 — Chinese threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identifi-cation and marking	Note	Recommended valving procedure
T37	China	W39-12TPI taper 3:25profile -. to surface	GB 8335-1998	Pz39	39C		
T38	China	W27,8-14TPI taper 3:25profile -. To surface	GB 8335-1998	Pz27,8	25E	T4, T5, T6 and T7 and T38 are equivalent threads	See ISO 13341
T39	China	W19,2-14TPI taper 3:25 profile -. To surface	GB 8335-1998	Pz19,2	17E	T1, T2 and T3 and T39 are equivalent threads.	See ISO 13341

Table 5 — European threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T2	EU	E17 con	EN 144-1	E17con			
T4	EU	25E	EN 629-1 (ISO 10920)	25E	25E	T4, T5, T6, T7 and T38 are equivalent threads	See ISO 13341
P1	EU	M18×1,5	ISO 15245:2001	18P	18P	P1, P2 and P42 have equivalent thread size	See ISO 13341
P2	EU	M18×1,5	EN 144-1:2005	M18	M18		
P3	EU	M25×2	ISO 15245:2001	25P	25P	P3, P4, P5 and P43 have equivalent thread size	See ISO 13341
P4	EU	M25×2	EN 144-1:2005	M25	M25		
P5	EU	M25×2	DIN 477-6	M25	M25		
P6	EU	M30×2	ISO 15245:2001	30P	30P	P6 and P44 have equivalent thread size	See ISO 13341

Table 6 — French threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T12	France	28,3 ×1/14taper angle 6°52′	NF E 29-676		28E		
T25	France	16,4×1/14taper angle 8°40′	NF E 29-678		16F		
T26	France	25,8×1/14taper angle 6°38′	NF E 29 680		25F	Cylinders with this thread can accept valves with T4, T5, T6 and T38	ISO 13341 may be used for guidance (torque values as for 25E)
T27	France	34×2taper angle 5°	NF E 29 682		34F	T27 and T28 are equivalent threads	
T29	France	26 ×1/14taper angle 3°34′ (1:16)	NF E 29684		26F3	Thread similar to T40 (3/4"NGT) but not equivalent.	
T30	France	RC1H" 11TPI, taper 3°34′ (1:16)	NF E 03004			Not used	
T46	France	Ø 19,3 × 1,81410, 5 % ± 0,5 %			19F(P)	For LPG	
T47	France	Ø 23,2 ou 23,7 × 2,0010 % ± 0,5 %			23F(P)	For LPG	
T48	France	Ø 28,8 × 1,81411, 2 % ± 0,5 %			29F(P)	For LPG	

Table 7 — German threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T3	German	W19,8×1/14 keg6°52′ (3:25) taper	DIN 477-1				
T5	German	W28,8×1/14 keg	DIN 477-1			T4, T5, T6, T7 and T38 are equivalent threads	
T9	German	W31,3×1/14 keg6°52′ (3:25) taper	DIN 477-1		28E	T9, T10, T11 and T12 are equivalent threads	ISO 13341 may be used for guidance

Table 8 — Italian threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T11	Italy	W28,3×1/14”	UNI 11144				
T28	Italy	M34×2	UNI 11144		34F	T27 and T28 are equivalent threads	

Table 9 — Japanese threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T31	Japan	W39-12TPI, taper 3:26, profile -. to surface	JIS B 8244	none	39J	For acetylene	
T32	Japan	W20-14TPI, taper 3:26, profile -. to axis	JIS B 8245 V1	None	JV1A	For LPG	
T33	Japan	W20-14TPI taper 3:26, profile -. to surface	JIS B 8246 V1	None	JV1S		
T34	Japan	W28-14TPI taper 3:26, profile -. to axis	JIS B 8245 V2	None	JV2A	For LPG	
T35	Japan	W28-14TPI taper 3:26, profile -. to surface	JIS B 8246 V2	None	JV2S		
T36	Japan	W28-14TPI taper 3:26, profile -. to surface	JIS B 8246 V3	None	JV3S	Short length	
P9	Japan	5/8-18UNF	JIS B8246 (JIS B0208, ISO263, ANSI B1.1)		UNF10	P9, P10 and P11 have equivalent thread size	
P7	Japan	1/2-20UNF	JIS B8246 (JIS B0208, ISO263, ANSI B1.1)		UNF8	P7 and P8 have equivalent thread size	
P19	Japan	3/4-14NPSM	JIS B8246 (ANSI B1.20.1)		NPS12	P19 and P20 have equivalent thread size	
P17	Japan	1 1/8-12UNF	JIS B8246 (JIS B0208, ISO263, ANSI B1.1)		UNF18	P17 and P18 have equivalent thread size	
P15	Japan	7/8-14UNF	JIS B8246 (JIS B0208, ISO263, ANSI B1.1)		UNF14	P15 and P16 have equivalent thread size	
P12	Japan	3/4-16UNF	JIS B8246 (JIS B0208, ISO263, ANSI B1.1)		UNF12	P12, P13 and P14 have equivalent thread size	

Table 10 — Korean threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T49	Korea	W20-14 taper 3/26	KS B 6212 V1				
T50	Korea	W28-14 taper 3/26	KS B 6212 V2				
T51	Korea	W28-14 taper 3/26	KS B 6212 V1				
T52	Korea	W28-14 taper 3/26	KS B 6212 V2				
T53	Korea	W28-14 taper 3/26	KS B 6212 V3				
T54	Korea	W39-12 taper 3/26	KS B 6215				
T55	Korea	W38-12 taper 3/26	KS B 6219 N3-S			Profile perpendicular to surface	
T56	Korea	W38-12 taper 3/26	KS B 6219 N3-A			Profile perpendicular to axis	

Table 11 — Swedish threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identifi-cation and marking	Note	Recommended valving procedure
T23	Sweden	W28, taper 3:24,5	SMS2235	(W28,0)	25S	Cylinders with this thread can accept valves with T4, T5, T6 and T38	ISO 13341 may be used for guidance (torque values as for 25E)

Table 12 — UK threads

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identification and marking	Note	Recommended valving procedure
T8	UK	1” Nominal. 14 threads per inch. 1 in 8 taper on diameter	BS 341-1:1962		1”BS	Cylinders with this thread can accept valves with T4, T5, T6, T7 and T38	ISO 13341 may be used for guidance (torque values as for 25E)
T21	UK	W1,025” ×1/14. 10° incl. taper angle	BS 341-1:1991	26T	26T		ISO 13341 may be used for guidance (torque values as for 25E)
T13	UK	W0,6”×1/14. 10° incl. taper angle	BS 341-2:1963	(15T)	15T	T13 and T14 are equivalent threads	ISO 13341 may be used for guidance (torque values as for 17E)
T15	UK	W0,635”×1/18. 8° incl. taper angle	BS 341-1:1991	(16T)	16T		ISO 13341 may be used for guidance (torque values as for 17E)
T20	UK	W0,735”×1/14. 1:8 incl. taper angle	BS 341-1:1991	19T	19T		ISO 13341 may be used for guidance (torque values as for 17E)
T17	UK Ireland	W0,715”×1/14. 1:8 incl. taper angle	BS 341-1:1991	18T	18T	T17, T18 and T19 are equivalent threads	ISO 13341 may be used for guidance (torque values as for 17E)
T22	UK	W1,25”×1/14. 1:8 incl. taper angle	BS 341-1:1991	32T	32T		ISO 13341 may be used for guidance
T6	UK	W1,000” ×1/14. 3:25 incl. taper angle	BS 341-1:1991	25T		T4, T5, T6, T7 and T38 are equivalent threads	
T16	UK	SI 0,694”× 1/14. 6° incl. taper angle	BS 341-1:1962 (UKLPG Code of Practice 15, Part 2)	(17T)	17T	For propane	
P11	UK	5/8”-18 UNF	BS 1580: 1962				
P13	UK	3/4”-16UNF	BS 1580: 1962				
P21	UK	¼” BSP	BS 2779: 1986		BSP04		
P22	UK	M14 × 1.5 ISO	BS 3643: 1981		M14		
P23	UK	1-7/8” - 12 UNS 2B	BS 1580: 1962		UNS30		
P24	UK	1-5/8”-12 UNS	BS 1580: 1962		UNS26		
P42	UK	M18×1.5-6H	BS 341 (1991)	18P	18P	P1, P2 and P42 have equivalent thread size	
P43	UK	M25×2.0-6H	BS 341 (1991)	25P	25P	P3, P4, P5 and P43 have equivalent thread size	
P44	UK	M30×2.0-6H	BS 341 (1991)	30P	30P	P6 and P44 have equivalent thread size	

Table 13 — Threads for special application

Ref. no.	Origin	Nominal designation of thread	Specification or standard	Official mark to standard	Identifi-cation and marking	Note	Recommended valving procedure
P28	Special Application	G ¾”	ISO 228 (external or internal)		G12		
P29	Special Application	G1”	ISO 228 (external or internal)		G16		
P30	Special Application	G1 ¼”	ISO 228 (external or internal)		G20		
P31	Special Application	G1 ½”	ISO 228 (external or internal)		G24		
P32	Special Application	G2”	ISO 228 (external or internal)		G32		
P33	Special Application	1 5/8-12UNJ-3B	ISO 3161		UNJ26		
P34	Special Application	2 1/2-12UN-2A(or 2B)	ANSI/ASME B1.1		UN40		
P35	Special Application	M50×2 ext.	DIN 13		M50	Thread size equivalent to P39	
P36	Special Application	3.1/4” × 8UN - 2B	BS.1580		UN52		
P37	Special Application	4.1/2” × 8UN - 2B	BS.1580		UN72		
P38	Special Application	6.1/2” × 8UN - 2B	BS.1580		UN104		
P39	Special Application	M50×2	ISO 965		M50*	Thread size equivalent to P35	
P40	Special Application	M86×3	ISO 965		M86		
P41	Special Application	M68×2	ISO 965		M68		

Tables 2 to 13 are not a comprehensive list of threads which could be used in gas cylinders. If intermediate or other threads are used it is recommended that the designation of the thread is chosen in line with the systematic rules given below, whereby the meaning of the letters and numbers is the following:

P	Parallel thread to ISO 15245 preceded by a number giving the approximate diameter in millimetres (to be used for 17P, 25P and 30P only)
M	Metric threads followed by a number giving the approximate diameter in millimetres
G	ISO 228 pipe threads followed by a number giving the diameter in a multiple of 1/16th inches
BSP	BSP threads followed by a number giving the diameter in a multiple of 1/16th inches
NPS	NPSM threads followed by a number giving the diameter in a multiple of 1/16th inches
UN	UN threads followed by a number giving the diameter in a multiple of 1/16th inches
UNF	UNF threads followed by a number giving the diameter in a multiple of 1/16th inches
UNJ	UNJ threads followed by a number giving the diameter in a multiple of 1/16th inches
UNS	UNS threads followed by a number giving the diameter in a multiple of 1/16th inches

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