



## ISO/TC 28 Petroleum products and lubricants Advisory Group

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**ISO/TC 28 AG N 248 Rev.**

**2003-07-07**

**To: Members of the ISO/TC 28 AG**

Dear Member,

### **ISO/TC 28 Secretariat resources**

It has become apparent that secretariat resources can often be a rate-determining step in the ISO/TC 28 standards-development process. It should be noted that up until 1995, the average number of standards published by ISO/TC 28 was 4 per year. Since 1996, when API assumed direct responsibility for the ISO/TC 28 Secretariat, the average number of standards published (including those projected to be published by the end of this year) is 8 per year (see Annex A). Whilst these numbers in no way reflect the complexity or length of the standards involved, it does give a good indication of the number of items the Secretariat has to handle in both an administrative and editorial capacity.

The number of standards that ISO/TC 28 is trying to maintain, as well as at the same time develop new ones, has grown enormously over the last few years. Annex A is basically a numerical history of standards developed by ISO/TC 28 in the last 30 years. As the cumulative number of ISO/TC 28 standards has grown, so has the number of standards that need to be maintained (reviewed every 5 years). By the end of 2003, it is likely that ISO/TC 28 will, on average, have to review **over 20 International Standards every year**.

The number of work items that can be administratively handled in the time available, by the Secretariat, has a limit. It should be noted that one of the functions of the ISO/TC 28 Advisory Group is to give advice on priorities (extracted from document ISO/TC 28 N 2001 Rev.):

#### **A.4 Advice on priorities**

"The Advisory Group advises the Chairman on the relative priorities of work items as they relate to Industry needs. This is particularly pertinent for those work items either being processed under the Vienna Agreement, or previously indicated by CEN/TC 19 as being required for existing European Standards, or those under development. The Advisory Group should request that priority is given by the Chairman and Secretary to work items foreseen of most immediate need."

The ISO/TC 28 Secretary requests the AG give advice on the priorities of the current active work items (see Table 1) and assist in establishing target dates. Please note that Table 1 is not necessarily complete in all aspects, and will require input from the Secretaries of ISO/TC 28/SC 4 and CEN/TC 19 to ensure the requirements of these committees are adequately stated.

It should also be noted that new work item proposals may also be submitted in the future, and the results of the 2003 systematic review (ballot terminated on 2003-06-30 – results under compilation) may indicate that some existing ISO/TC 28 standards should be revised. Therefore, Table 1 may require further modifications in the future in order to accommodate the relative priorities of these new items of work.

Table 2 is given for information and is a list of preliminary work items, i.e. items that may become "active" work items in the future.

Yours sincerely

**Paula Watkins**

Paula Watkins  
Secretary to ISO/TC 28/AG

**Table 1 — "Active" ISO/TC 28 Work Items**

<b>Standard designation</b>	<b>Title</b>	<b>Required by CEN/TC 19?</b> (parallel work item under the Vienna Agreement)	<b>Required by ISO/TC 28/SC 4?</b>	<b>Notes</b>	<b>Priority</b>
<b>ISO/DIS 2137</b>	<i>Petroleum products and lubricants — Determination of cone penetration of lubricating greases and petrolatum</i>	No	Yes – For reference in ISO 12924 (Specification for greases) under development.  ISO 2137:1985 also referenced in proposed ISO/FDIS 13737:(2002), ISO 6743-9:2003 and ISO/TS 12928:1999.	Comments from CD ballot resolved by PL and DIS text prepared. English text to be updated by Secretary to incorporate changes approved by PL to align with the latest revisions of ASTM D217 and D1403.	
<b>ISO/FDAM 2160</b>	<i>Petroleum products – Corrosiveness to copper – Copper strip test</i>	Yes – For reference in EN 590 and EN 14214.  Scope of ISO 2160 requires extension to 100% FAME and 5% FAME in blend. Precision applicable but not a numerical result.  Parallel work.		ISO 2160 currently under systematic review.	
<b>ISO/FDAM 2719</b>	<i>Determination of flash point – Pensky-Martens closed cup method</i>	Yes – For reference in EN 590.  Scope of ISO 2719 requires extension to 5 % FAME in blend. Precision applicable to 5% FAME in blend.  Parallel work.			
<b>ISO/FDAM 3015</b>	<i>Petroleum products – Determination of cloud point</i>	Yes – For reference in EN 590.  Scope of ISO 3015 requires extension to 5% FAME in blend. Precision applicable to 5% FAME in blend.  Parallel work.		Confirmed in 2002 following systematic review. Also listed as a PWI so that comments from the review can be evaluated.	

**Table 1 (continued) — "Active" ISO/TC 28 Work Items**

Standard designation	Title	Required by CEN/TC 19? (parallel work item under the Vienna Agreement)	Required by ISO/TC 28/SC 4?	Notes	Priority
ISO/FDAM 3016	<i>Petroleum products – Determination of pour point</i>	NOT required for CEN/TC 19 specifications, but potential requirement for implementation in national standards. Therefore, scope of ISO 3016 requires extension to 100% FAME and 5% FAME in blend. Precision applicable for 100% FAME and 5% FAME in blend.			
ISO/CD 3104	<i>Petroleum products – Transparent and opaque liquids – Determination of kinematic viscosity and calculation of dynamic viscosity</i>	Yes – For reference in EN 14213 and EN 14214. Scope of ISO 3104 requires extension to 100% FAME and 5% FAME in blend. Precision for 100% FAME: $r = 0,11\%$ and $R = 1,8\%$ . Parallel work.	Yes – For reference in ISO 6521, revision of ISO 8217:1996, and ISO 10050 (under development).	Under revision following systematic review in 1999. CD text not as yet received from PL.	
ISO/CD 3105	<i>Glass capillary kinematic viscometers – Specification and operating instructions</i>	No		Under revision following systematic review in 1999. CD text not as yet received from PL.	
ISO/FDAM 3405	<i>Petroleum products – Determination of distillation characteristics at atmospheric pressure</i>	Yes – For reference in EN 590. ISO 3405 not required for 100% FAME but scope requires extension to 5% FAME in blend. Precision applicable to 5% FAME in blend. Parallel work.			

**Table 1 (continued) — "Active" ISO/TC 28 Work Items**

<b>Standard designation</b>	<b>Title</b>	<b>Required by CEN/TC 19?</b> (parallel work item under the Vienna Agreement)	<b>Required by ISO/TC 28/SC 4?</b>	<b>Notes</b>	<b>Priority</b>
<b>ISO/CD 3771</b>	<i>Petroleum products – Determination of base number – Perchloric acid potentiometric titration method</i>	No		Under revision following systematic review in 1999. CD text not as yet received from PL. Alternative solvents under review by DIN and ASTM groups.	
<b>ISO/FDAM 3987</b>	<i>Petroleum products – Lubricating oils and additives – Determination of sulfated ash</i>	Yes – For reference in EN 14213 and EN 14214. Scope of ISO 3987 requires extension to 100% FAME. Precision for 100% FAME: $r = 0,06X^{0,85}$ and $R = 0,142X^{0,85}$ .			
<b>ISO/DIS 4259</b>	<i>Petroleum products – Determination and application of precision data in relation to methods of test</i>	Yes – For reference in EN 228, EN 590, EN 14213, EN 14214 and EN 14274. Parallel work.	Yes – For reference in the revision of ISO 8217:1996, and ISO 10050 (under development).	Proposed DIS text undergoing technical editing by Secretary. Text will be returned to John Church for final check prior to submitting to ISO/CS for ballot.	
<b>ISO/DIS 4263-3</b>	<i>Petroleum and related products – Determination of the ageing behaviour of inhibited oils and fluids – TOST test – Part 3: Anhydrous procedure for synthetic hydraulic fluids</i>	Yes – Parallel work.		Comments from CD ballot resolved by PL. Secretary to prepare English DIS text.	
<b>ISO/DIS 4263-4</b>	<i>Petroleum and related products – Determination of the ageing behaviour of inhibited oils and fluids – TOST test – Part 4: Procedure for industrial gear oils</i>	Yes – Parallel work.		English DIS text prepared. Requires check by Secretary prior to submitting to ISO/CS for ballot.	
<b>ISO/CD 4264</b>	<i>Petroleum products – Calculation of cetane index of middle-distillate fuels by the four-variable equation</i>	Yes – Parallel work.	Yes – For reference in the revision of ISO 8217:1996.	Under revision following systematic review in 2000. New figures received, but CD text still awaited from PL.	

**Table 1 (continued) — "Active" ISO/TC 28 Work Items**

Standard designation	Title	Required by CEN/TC 19? (parallel work item under the Vienna Agreement)	Required by ISO/TC 28/SC 4?	Notes	Priority
ISO/DIS 5163	<i>Petroleum products – Determination of knock characteristics of motor and aviation fuels – Motor method</i>	Yes – For reference in EN 228. Parallel work.		Comments from DIS ballot resolved by PL. Secretary to prepare English FDIS text. Secretary to request permission from ASTM to use figure from D2700.	
ISO/DIS 5164	<i>Petroleum products – Determination of knock characteristics of motor fuels – Research method</i>	Yes – For reference in EN 228. Parallel work.		Comments from DIS ballot resolved by PL. Secretary to prepare English FDIS text. Secretary to request permission from ASTM to use figure from D2699.	
ISO/FDAM 5165	<i>Petroleum products – Determination of the ignition quality of diesel fuels – Cetane engine method</i>	Yes – For reference in EN 590. Scope of ISO 5165 requires extension to 100% FAME and 5% FAME in blend. Precision for 100% FAME: $r = 2,4$ and $R = 5$ ; precision for 5% FAME in blend at 52CN $r = 0,9$ and $R = 4,3$ . Parallel work.			
ISO/FDAM 6245	<i>Petroleum products – Determination of ash</i>	Yes – For reference in EN 590. ISO 6245 not required for 100% FAME but scope requires extension to 5% FAME in blend. Precision applicable to 5% FAME in blend. Parallel work.			

**Table 1 (continued) — "Active" ISO/TC 28 Work Items**

<b>Standard designation</b>	<b>Title</b>	<b>Required by CEN/TC 19?</b> (parallel work item under the Vienna Agreement)	<b>Required by ISO/TC 28/SC 4?</b>	<b>Notes</b>	<b>Priority</b>
<b>ISO/CD 6246</b>	<i>Petroleum products – Gum content of light and middle distillate fuels – Jet evaporation method</i>	Yes – Parallel work.		Under revision following systematic review in 2000. CD text prepared and awaiting ballot (target date: 2003-03-01). As the revision is based on ASTM D381, requires approval from US/TAG and D02.90.	
<b>ISO/CD 7536</b>	<i>Petroleum products – Determination of oxidation stability of gasoline – Induction period method</i>	Yes – Parallel work.		Under revision following systematic review in 1999. Revision draft under review by PL (target date for initiating CD ballot: 2003-06-01). As the revision is based on ASTM D525, requires approval from US/TAG and D02.90.	
<b>ISO/FDAM 10370</b>	<i>Petroleum products – Determination of carbon residue – Micro method</i>	Yes – For reference in EN 14213 and EN 14214. Scope of ISO 10370 requires extension to 100% FAME and 5% FAME in blend. Precision applicable to 100% FAME. Parallel work.		Listed as a PWI. Revision will be initiated once new precision evaluation using smaller vials (?) completed on ASTM Standard.	
<b>ISO/AMD 12156-1</b>	<i>Diesel fuel – Assessment of lubricity using the high-frequency reciprocating rig (HFRR) – Part 1: Test method</i>	Yes – For reference in EN 590. ISO 12156-1 not required for 100% FAME but scope requires extension to 5% FAME in blend. Precision applicable to 5% FAME in blend. Parallel work.		Following systematic review in 2002, an Amendment to the standard will initially be progressed and then a full revision. Proposed Amendment needs to be first reviewed by ISO/TC 22/SC 7-TC 28 JWG.	

**Table 1 (continued) — "Active" ISO/TC 28 Work Items**

<b>Standard designation</b>	<b>Title</b>	<b>Required by CEN/TC 19?</b> (parallel work item under the Vienna Agreement)	<b>Required by ISO/TC 28/SC 4?</b>	<b>Notes</b>	<b>Priority</b>
<b>ISO/FDAM 12205</b>	<i>Petroleum products – Determination of the oxidation stability of middle-distillate fuels</i>	Yes – For reference in EN 590.  ISO 12205 not required for 100% FAME. No information available for 5% FAME in blend.  Parallel work.			
<b>ISO/CD 13736</b>	<i>Petroleum products and other liquids – Determination of flash point – Abel closed cup method</i>	Yes – Parallel work.		Under revision following systematic review in 2002. CD text not as yet received from PL.	
<b>ISO/FDIS 13737</b>	<i>Petroleum products and lubricants — Determination of low-temperature cone penetration of lubricating greases</i>	No	Yes – For reference in ISO 12924 (Specification for greases) under development.	PL has resolved comments on proposed FDIS text that accompanied ballot for reinstatement. Michel Bourgogne preparing updated English FDIS text. ISO/FDIS 13737 makes reference to ISO 2137, therefore ISO/DIS 2137 should be progressed first.	
<b>ISO/FDAM 13759</b>	<i>Petroleum products – Determination of alkyl nitrate in diesel fuels – Spectrometric method</i>	Yes – For reference in EN 590.  ISO 13759 not required for 100% FAME. Precision applicable to 5% FAME in blend.  Parallel work.			
<b>ISO 14596</b>	<i>Petroleum products – Determination of sulfur content – Wavelength-dispersive X-ray fluorescence spectrometry</i>	Yes – Parallel work.	Yes – For reference in the revision of ISO 8217:1996.	Under systematic review. Ballot terminates on 2003-06-30. CEN/TC 19 has requested the standard is revised.	

**Table 1 (continued) — "Active" ISO/TC 28 Work Items**

<b>Standard designation</b>	<b>Title</b>	<b>Required by CEN/TC 19?</b> (parallel work item under the Vienna Agreement)	<b>Required by ISO/TC 28/SC 4?</b>	<b>Notes</b>	<b>Priority</b>
<b>ISO 15029-1 Technical Corrigendum</b>	<i>Petroleum and related products – Determination of spray ignition characteristics of fire-resistant fluids – Part 1: Spray flame persistence – Hollow cone nozzle method</i>	Yes – Parallel work.			
<b>ISO/NP-CD 15029-2</b>	<i>Petroleum and related products – Determination of spray ignition characteristics of fire-resistant fluids – Part 2: Spray test – Stabilized flame heat release spray method</i>	Yes – Parallel work.	Cited in the bibliography of ISO/DIS 10050.  Could be referenced in a future revision of ISO 12922:1999 (due for ISO systematic review in 2004)	CD text prepared by PL reviewed by AG (see AG N 205). Approved by AG, and after editing will be balloted as a CD (target date: 2003-09-01).	
<b>ISO/NP-CD 15029-3</b>	<i>Petroleum and related products – Determination of spray ignition characteristics of fire-resistant fluids – Part 3: Spray test – Large scale method</i>	Yes – Parallel work	Cited in the bibliography of ISO/DIS 10050.	CD text prepared by PL reviewed by AG (see AG N 199). Approved by AG, and after editing will be balloted as a CD (target date: 2003-09-01).	
<b>ISO/DIS 16591</b>	<i>Petroleum products – Determination of sulfur content – Oxidative microcoulometry method</i>	Yes – Parallel work		DIS ballot terminated on 2001-01-24 (parallel Enquiry Vote within CEN/TC 19). 2 negative votes submitted [Canada (O-member) & Singapore (P-member)]. Comments under consideration by PL.	
<b>ISO/NP</b>	<i>Testing of lubricants – Determination of shear stability of lubricating oils containing polymers – Testing with the four ball tester</i>			Possible new work item proposal submitted by DIN-FAM and discussed by ISO/TC 28/AG as document 28/AG N 245.	

**Table 2 — Preliminary work items (list given for information)**

Standard designation	Title	Required by CEN/TC 19? (parallel CEN work item under the Vienna Agreement)	Required by ISO/TC 28/SC 4?	Notes
ISO/PWI 2977	<i>Petroleum products and hydrocarbon solvents – Determination of aniline point and mixed aniline point</i>			Confirmed in 2002 following systematic review. Also listed as a PWI so that comments from the review can be evaluated (see Res. 15 of 28 N 2200). ISO originally based on ASTM D611.
ISO/PWI 3013	<i>Petroleum products – Determination of the freezing point of aviation fuels</i>			Confirmed in 2002 following systematic review. Also listed as a PWI so that comments from the review can be evaluated (see Res. 16 of 28 N 2200).
ISO/PWI 6250	<i>Petroleum products – Determination of the water reaction of aviation fuels</i>			Confirmed in 2002 following systematic review. Also listed as a PWI so that comments from the review can be evaluated (see Res. 16 of 28 N 2200).
ISO/PWI 6297	<i>Petroleum products – Aviation and distillate fuels – Determination of electrical conductivity</i>			Confirmed in 2002 following systematic review. Also listed as a PWI so that comments from the review can be evaluated (see Res. 16 of 28 N 2200).
ISO/PWI 7941	<i>Commercial propane and butane – Analysis by gas chromatography</i>			Confirmed following systematic review in 1998, but also registered as a PWI. A revision will be initiated once updated technique (replacement for D 2163) is balloted within ASTM D02. Simultaneous revision with ISO 8973 considered (see Res. 20 of 28 N 2200).

**Table 2 (continued) — Preliminary work items (list given for information)**

Standard designation	Title	Required by CEN/TC 19? (parallel CEN work item under the Vienna Agreement)	Required by ISO/TC 28/SC 4?	Notes
ISO/PWI 8973	<i>Liquefied petroleum gases – Calculation method for density and vapour pressure</i>			Confirmed in 2002 following systematic review. Also listed as a PWI so that comments from the review can be evaluated (see Res. 16 of 28 N 2200).
ISO/PWI 10307-1	<i>Petroleum products – Total sediment in residual fuel oils – Part 1: Determination by hot filtration</i>			Confirmed following systematic review in 1998, but also registered as a PWI. A revision will be initiated once the new precision evaluation has been completed.
ISO/PWI 11007	<i>Petroleum products and lubricants – Determination of rust-prevention characteristics of lubricating greases</i>			Confirmed in 2002 following systematic review. Also listed as a PWI so that comments from the review can be evaluated (see Res. 16 of 28 N 2200).

## Annex A — Standards published by ISO/TC 28 by year

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
1972	2049	1 <sup>st</sup>	4	4
	2137	1 <sup>st</sup>		
	2160	1 <sup>st</sup>		
	2176	1 <sup>st</sup>		
1973	2592	1 <sup>st</sup>	2	6
	2719	1 <sup>st</sup>		
1974	2908	1 <sup>st</sup>	8	14
	2977	1 <sup>st</sup>		
	3007	1 <sup>st</sup>		
	3012	1 <sup>st</sup>		
	3013	1 <sup>st</sup>		
	3014	1 <sup>st</sup>		
	3015	1 <sup>st</sup>		
3016	1 <sup>st</sup>			
1975	2909	1 <sup>st</sup>	3	17
	3405	1 <sup>st</sup>		
	3448	1 <sup>st</sup>		
1976	3104	1 <sup>st</sup>	3	20
	3105	1 <sup>st</sup>		
	3648	1 <sup>st</sup>		

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
1977	3771	1 <sup>st</sup>	7	27
	3830	1 <sup>st</sup>		
	3841	1 <sup>st</sup>		
	3924	1 <sup>st</sup>		
	5163	1 <sup>st</sup>		
1978	5164	1 <sup>st</sup>	4	31
	5165	1 <sup>st</sup>		
	3839	1 <sup>st</sup>		
	4256	1 <sup>st</sup>		
1979	4262	1 <sup>st</sup>	1	32
	5662	1 <sup>st</sup>		
	4259	1 <sup>st</sup>		
1980	2207	1 <sup>st</sup>	3	35
	3987	1 <sup>st</sup>		
	6073	1 <sup>st</sup>		
1981	2909	2 <sup>nd</sup>	4	36
	3014	2 <sup>nd</sup>		
	3830	2 <sup>nd</sup>		
	6246	1 <sup>st</sup>		
1982	6244	1 <sup>st</sup>	4	40
	6245	1 <sup>st</sup>		
	6250	1 <sup>st</sup>		
	6251	1 <sup>st</sup>		
		1 <sup>st</sup>		

**Annex A (continued) — Standards published by ISO/TC 28 by year**

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
1983	5661	1 <sup>st</sup>	6	46
	6293	1 <sup>st</sup>		
	6295	1 <sup>st</sup>		
	6297	1 <sup>st</sup>		
	6614	1 <sup>st</sup>		
	6615	1 <sup>st</sup>		
1984	6249	1 <sup>st</sup>	1	47
1985	2137	2 <sup>nd</sup>	2	47
	2160	2 <sup>nd</sup>		
1986	3007	2 <sup>nd</sup>	3	49
	4263	1 <sup>st</sup>		
	4265	1 <sup>st</sup>		
1987	4260	1 <sup>st</sup>	4	53
	6618	1 <sup>st</sup>		
	7120	1 <sup>st</sup>		
	8819	1 <sup>st</sup>		
1988	2719	2 <sup>nd</sup>	4	55
	3405	2 <sup>nd</sup>		
	6619	1 <sup>st</sup>		
	7941	1 <sup>st</sup>		
1989	2977	2 <sup>nd</sup>	2	56
	7537	1 <sup>st</sup>		
1990	5163	2 <sup>nd</sup>	2	56
	5164	2 <sup>nd</sup>		

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
1991	3012	2 <sup>nd</sup>	1	56
1992	3015	2 <sup>nd</sup>	5	57
	3448	2 <sup>nd</sup>		
	4259	2 <sup>nd</sup>		
	5165	2 <sup>nd</sup>		
	8754	1 <sup>st</sup>		
1993	3014	3 <sup>rd</sup>	10	61
	3830	3 <sup>rd</sup>		
	3837	1 <sup>st</sup>		
	4262	2 <sup>nd</sup>		
	6245	2 <sup>nd</sup>		
	6615	2 <sup>nd</sup>		
	8819	2 <sup>nd</sup>		
	10307-1	1 <sup>st</sup>		
10307-2	1 <sup>st</sup>			
	10370	1 <sup>st</sup>		

**Annex A (continued) — Standards published by ISO/TC 28 by year**

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
1994	3016	2 <sup>nd</sup>	11	65
	3104	2 <sup>nd</sup>		
	3105	2 <sup>nd</sup>		
	3648	2 <sup>nd</sup>		
	3771	2 <sup>nd</sup>		
	3987	2 <sup>nd</sup>		
	6614	2 <sup>nd</sup>		
	6617	1 <sup>st</sup>		
	7536	1 <sup>st</sup>		
	8691	1 <sup>st</sup>		
10478	1 <sup>st</sup>			
1995	2176	2 <sup>nd</sup>	5	68
	4264	1 <sup>st</sup>		
	6246	2 <sup>nd</sup>		
	9950	1 <sup>st</sup>		
	12205	1 <sup>st</sup>		

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
1996	2049	2 <sup>nd</sup>	8	71
	3839	2 <sup>nd</sup>		
	4256	2 <sup>nd</sup>		
	6251	2 <sup>nd</sup>		
	6293-1 <sup>1</sup>	1 <sup>st</sup>		
	13757	1 <sup>st</sup>		
	13758	1 <sup>st</sup>		
	13759	1 <sup>st</sup>		
1997	2977	3 <sup>rd</sup>	15	78
	3013	2 <sup>nd</sup>		
	5662	2 <sup>nd</sup>		
	6073	2 <sup>nd</sup>		
	6250	2 <sup>nd</sup>		
	6297	2 <sup>nd</sup>		
	6618	2 <sup>nd</sup>		
	7537	2 <sup>nd</sup>		
	7624	1 <sup>st</sup>		
	8973	1 <sup>st</sup>		
	9120	1 <sup>st</sup>		
	11007	1 <sup>st</sup>		
	13357-2	1 <sup>st</sup>		
	13736	1 <sup>st</sup>		
	14597	1 <sup>st</sup>		

<sup>1</sup> ISO 6293-1:1996 superseded ISO 6293:1983.

**Annex A (continued) — Standards published by ISO/TC 28 by year**

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
1998	2160	3 <sup>rd</sup>	9	85
	TR 3666 <sup>2</sup>	2 <sup>nd</sup>		
	4404	1 <sup>st</sup>		
	5165	3 <sup>rd</sup>		
	6247	1 <sup>st</sup>		
	6293-2	1 <sup>st</sup>		
	6299	1 <sup>st</sup>		
	14596	1 <sup>st</sup>		
14935	1 <sup>st</sup>			
1999	3007	3 <sup>rd</sup>	7	88
	3012	3 <sup>rd</sup>		
	3924	2 <sup>nd</sup>		
	6249	2 <sup>nd</sup>		
	15029-1	1 <sup>st</sup>		
	15167	1 <sup>st</sup>		
	TR 18455	1 <sup>st</sup>		
2000	2592	2 <sup>nd</sup>	4	90
	3405	3 <sup>rd</sup>		
	11009	1 <sup>st</sup>		
	15911	1 <sup>st</sup>		

<sup>2</sup> Responsibility for ISO/TR 3666 transferred from ISO/TC 66. Therefore, although a second edition, ISO/TR 3666:1998 was included in the cumulative total of ISO/TC 28 standards for the first time.

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
2001	4404-1 <sup>3</sup>	1 <sup>st</sup>	3	91
	6245	3 <sup>rd</sup>		
	15597	1 <sup>st</sup>		
2002	1516 <sup>4</sup>	3 <sup>rd</sup>	5	94
	1523 <sup>5</sup>	3 <sup>rd</sup>		
	2719	3 <sup>rd</sup>		
	2909	3 <sup>rd</sup>		
	13357-1	1 <sup>st</sup>		

<sup>3</sup> ISO 4404-1:2001 superseded ISO 4404:1998.

<sup>4</sup> Responsibility for ISO 1516 transferred from ISO/TC 35. Therefore, although a third edition, ISO 1516:2002 was included in the cumulative total of ISO/TC 28 standards for the first time.

<sup>5</sup> Responsibility for ISO 1523 transferred from ISO/TC 35. Therefore, although a third edition, ISO 1523:2002 was included in the cumulative total of ISO/TC 28 standards for the first time.

**Annex A (continued) — Standards published by ISO/TC 28 by year**

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
2003	4263-1 <sup>6</sup>	1 <sup>st</sup>		
	4263-2	1 <sup>st</sup>		
Parentheses indicates those standards ISO/TC 28 expects to publish this year	(4404-2)	(1 <sup>st</sup> )		
	(5275) <sup>7</sup>	(2 <sup>nd</sup> )		
	(8754)	(2 <sup>nd</sup> )		
	(20623)	(1 <sup>st</sup> )		
	(20763)	(1 <sup>st</sup> )		
	(20764)	(1 <sup>st</sup> )	2	95
	(20783-1)	(1 <sup>st</sup> )	+(13)	(107)
	(20783-2)	(1 <sup>st</sup> )		
	(20823)	(1 <sup>st</sup> )		
	(20843)	(1 <sup>st</sup> )		
	(20846)	(1 <sup>st</sup> )		
	(20847)	(1 <sup>st</sup> )		
	(20884)	(1 <sup>st</sup> )		

Year	ISO/TC 28 standard(s) published	Edition	ISO/TC 28 standards/year	Cumulative number of ISO/TC 28 standards available
2004	(2137)	(3 <sup>rd</sup> )		
(Projected)	(3679) <sup>8</sup>	(3 <sup>rd</sup> )		
	(3680) <sup>9</sup>	(3 <sup>rd</sup> )		
	(4259)	(3 <sup>rd</sup> )		
	(4263-3)	(1 <sup>st</sup> )	(10)	(117)
	(4263-4)	(1 <sup>st</sup> )		
	(5163)	(3 <sup>rd</sup> )		
	(5164)	(3 <sup>rd</sup> )		
	(13737)	(1 <sup>st</sup> )		
	(20844)	(1 <sup>st</sup> )		

**Not included:**

- ISO 1516:1973      1<sup>st</sup> edition – Developed by ISO/TC 35
- ISO 1516:1981      2<sup>nd</sup> edition – Developed by ISO/TC 35
- ISO 1523:1973      1<sup>st</sup> edition – Developed by ISO/TC 35
- ISO 1523:1983      2<sup>nd</sup> edition – Developed by ISO/TC 35
- ISO 3679:1976      1<sup>st</sup> edition – Developed by ISO/TC 35
- ISO 3679:1983      2<sup>nd</sup> edition – Developed by ISO/TC 35
- ISO 3680:1976      1<sup>st</sup> edition – Developed by ISO/TC 35
- ISO 3680:1981      2<sup>nd</sup> edition – Developed by ISO/TC 35
- ISO/TR 3666:1977      1<sup>st</sup> edition – Developed by ISO/TC 66
- ISO 5275:1979      1<sup>st</sup> edition – Developed by ISO/TC 78
- ISO 12156-1:1997      1<sup>st</sup> edition – Developed by ISO/TC 22/SC 7

<sup>6</sup> ISO 4263-1:2003 superseded ISO 4263:1986.

<sup>7</sup> Responsibility for ISO 5275 transferred from ISO/TC 47 (although the standard was originally developed by ISO/TC 78). Therefore, although a second edition, ISO 5275:2003 (projected publication date) will be included in the cumulative total of ISO/TC 28 standards for the first time.

<sup>8</sup> Responsibility for ISO 3679 transferred from ISO/TC 35. Therefore, although a third edition, ISO 3679:2004 (projected publication date), will be included in the cumulative total of ISO/TC 28 standards for the first time.

<sup>9</sup> Responsibility for ISO 3680 transferred from ISO/TC 35. Therefore, although a third edition, ISO 3680:2004 (projected publication date) will be included in the cumulative total of ISO/TC 28 standards for the first time.