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UDC 628 Public health engineering —
Water —
Illuminating engineering

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Foreword

The English version of the Universal Decimal Classification (UDC) is being prepared and published as BS 1000 by the British Standards Institution (BSI) at the original joint request of the British Society for International Bibliography (BSIB) and the Association of Special Libraries and Information Bureaux (ASLIB), now amalgamated as Aslib. It has the approval of the Lake Placid Education Foundation, New York, proprietors of the Dewey Decimal Classification, from which the UDC derives. The English full edition of the UDC is authorized by the International Federation for Documentation (FID), PO Box 30115, 2500 GC, The Hague, Netherlands.

This section is part of the English full edition. It should be used in conjunction with the Abridged English Edition, BS 1000A, which refers to many other subjects of interest not listed in this schedule, and provides a conspectus of the whole scheme, together with an introduction to its use. For further practical information about the principles, application and utilization of the scheme, users should refer to BS 1000C.

This edition of BS 1000[628], which supersedes the 1968 edition, includes modifications authorized in “Extensions and Corrections to the UDC” (FID publication no. 248) up to and including Series 11, No. 1, dated April 1981. Subsequent issues of “Extensions and Corrections to the UDC” should be consulted to keep the schedule up to date. British Standards related to this Part of BS 1000 are listed on the inside back cover.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 34, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Scope

Under 628 is classed information about the engineering aspects of public health and comfort, as distinct from the medical aspects which are to be found under 613/614. Sanitary, heating and electrical installations in buildings and the various associated trades are dealt with under 696/697.

Related subjects

331	Land and property. Real estate
351.77	Supervision of public health and hygiene. Sanitary control
532.5	Liquid motion. Hydrodynamics
534.83	Vibrations and their control. Control of disturbing noise. Noise abatement
535	Optics
543.3	Water sampling and analysis
55	Earth sciences. Geology. Geophysics. Seismology. Meteorology. Hydrology
613	Hygiene generally. Personal health and hygiene
614	Public health. Accident prevention
621.3	Electrical engineering
621.64	Fluid storage and distribution plant and equipment. Containers (tanks etc.). Conduits. Pipes etc.
621.65	Pumps. Pumping in general
624	Civil and structural engineering in general
625.76	Maintenance and repair of highways. Street cleansing
626.8	Agricultural hydraulics. Irrigation engineering. Land reclamation engineering. Land drainage engineering
627.81	Reservoirs: storage
631.6	Rural engineering. Land reclamation. Drainage. Irrigation — Agriculture
631.879.2	Sewage — Agriculture
64	Home economics
662.6/.9	Fuels
663.6	Water. Drinking water. Source water. Mineral waters. Ices. Ice cream
683.8	Fuel or flame lamps
69	Building
711.8	Public utilities: distribution, supply lines — Physical planning
725.193	Waterworks. Water supply buildings, structures — Architecture
725.194	Public health and sanitary buildings, structures — Architecture

Auxiliary signs and subdivisions

Full information about the common and special auxiliary signs and subdivisions (often abbreviated to “common and special auxiliaries”) will be found in BS 1000A and BS 1000C.

Colon sign of relation. For the classification of information for the public, as in abstracts and bibliographies, maximum use of colon combination rather than of common or special auxiliaries is recommended. The use of the colon sign of relation is preferable for multiple entry systems, as it will help prevent the concealment of information. This usually results in longer notation, however, and for information for more restricted use, the application of auxiliaries, where available, may be simpler and more convenient provided that there is an adequate alphabetical subject index.

Common auxiliaries. The common auxiliaries of language = . . . , form (0 . . .), place (1/9), race and nationality (= . . .), time “. . . ”, point of view .00 . . . , materials –03 . . . and persons –05 . . . are applicable throughout the UDC. However, they should be used mainly to express concepts not otherwise provided for in the schedules.

Special auxiliaries. The –1/–9 special auxiliaries listed under 62 are applicable to this section. They may be detached and applied to any subdivision where the result forms a meaningful combination.

There are no .0 special auxiliaries applicable through 628, but .0 special auxiliaries are listed under 628.1, 628.17, 628.4, 628.5, 628.8 and 628.9. In each instance, these special auxiliaries are applicable only to subdivisions of the number under which they are listed.

The .0 special auxiliaries listed under 66 are applicable to 628.16 and its subdivisions.

Typographic presentation

Small type is used for cancelled numbers and text. The arrow → means either “see” or “see also” according to the context. The symbol ≅ “subdivide as” means that the number preceding it may be subdivided in the same way as, and with meanings analogous to the subdivisions of, the number which follows it.

SCHEDULE

628 Public health engineering. Water. Sanitation. Illuminating engineering

Special auxiliary subdivisions		628.112.24	Bored wells (tube wells)
628 – 1/– 9	Details of public health engineering machinery and equipment 628 – 1/– 9 $\cong$ 62 – 1/– 9		628.112.24 $\cong$ 622.24 or use colon combination with the subdivisions of 622.24
Principal divisions		.3	Artificial groundwater extraction and enrichment →556.332.62 Natural recharge and its sources
628.1	WATER SUPPLY, TREATMENT, CONSUMPTION AND USE <i>Further particulars may be denoted by the common auxiliaries of place (Table 1e), e.g.</i> 628.1(1 – 21) Urban water supply .1(1 – 22) Rural water supply	.5 .113	Extraction of water from dunes Surface water from natural and artificial sources
Special auxiliary subdivisions for 628.1		.1	Water extraction from rivers and lakes, reservoirs and collecting basins etc. →627.81 Reservoirs: storage
628.1.03	Types of water. Nature, state and properties <i>Details of physical, chemical and biological properties may be denoted by colon combination with the subdivisions of 53, 54 and 57/59</i>	.2	Water collection from catchments. Well points. Natural and artificial filtration. Filtration through river banks →628.112.3 Artificial groundwater extraction and enrichment
.032	Natural water. Raw water	.5	Water extraction from the sea →628.165 Treatment of saline water (sea water or brackish water). Demineralization. Desalination 663.635 Brine. Sea water
.033	Public supply water in general. Potable water		
.034	Non-potable water. Industrial water	.116	Extraction of water from the atmosphere (by condensation). Dew ponds etc. →551.57 Aqueous vapours and hydrometeors 628.111 Rainwater and its storage
.036	Spring-water, groundwater with special properties → 553.7Mineral springs	628.12	CONVEYANCE OF WATER. GRAVITY SYSTEMS. PUMPING STATIONS Siting of pumping stations →621.227 Hydraulic rams 621.65 Pumps. Pumping in general
.4	Natural mineral waters →613.38 Natural and artificial mineral waters (as table waters) — Hygiene ii 663.64 Mineral and medicinal waters as drinks (effervescent and still)	.122	STORAGE OF WATER. WATER CONTAINERS →621.642 Storage vessels for fluids. Containers. Receivers. Tanks. Reservoirs etc. 624.953 Liquid storage structures. Tanks. Water reservoirs 626.81 Water sources for irrigation 627.81 Reservoirs: storage
.5	Natural medicinal waters →615.838 Hydrotherapy. Balneotherapy. Water treatment. Water baths. Drink cures. Remedial spas	628.13	Collecting reservoirs. Storage tanks. Collecting channels and leats <i>Location may be denoted by the common auxiliaries of place (Table 1e), e.g.</i> 628.132(24) Underground storage tanks Elevated storage tanks. Water towers Domestic water containers →644.613 Storage installations — Domestic water supply 696.113 Storage cisterns in buildings
Principal divisions (continued)		628.14	CONVEYANCE OF WATER FROM SOURCE TO DISTRIBUTION SYSTEM →621.64 Fluid storage and distribution installations and equipment. Containers. Conduits. Pipes etc. 628.15 Water distribution systems. Local networks. Distribution and service mains
628.11	WATER SOURCES. CATCHMENT ETC. →556.1 Hydrological cycle. Properties. Conditions. Global water balance 556.3 Groundwater hydrology. Geohydrology. Hydrogeology 556.5 Surface-water hydrology. Land hydrology <i>Further particulars may be denoted by the common auxiliaries of place (Table 1e), e.g.</i> 628.11(282) Flowing waters .11(285) Still waters	.132 .134 .136	Estimation of demand. Design and calculation of conduits <i>Further particulars may be denoted by colon combination with the subdivisions of 628.17</i>
.111	Rainwater and its storage (e.g. in tanks, butts, cisterns) →628.116 Extraction of water from the atmosphere (by condensation). Dew ponds etc.		
.112	Spring-water. Groundwater		
.1	Extraction from shallow depths. Spring conduit. Shallow wells		
.15	Horizontal wells		
.2	Extraction from great depths. Deep wells. Bored wells (tube wells). Artesian wells →622.24 Drilling (boring). Drilling technique. Drilling technology	.142	
.23	Artesian wells →556.334 Confined artesian waters 556.364 Artesian springs		

628.143	Conduits (aqueducts and pipelines). Pipe joints and fittings 628.143 $\cong$ 621.643, e.g. 628.143.1 Open conduits. Aqueducts .2 Closed conduits (rigid). Pipes .3 Flexible pipes. Hoses .4 Pipe connections. Pipe joints, flanges etc. .5 Draw-off devices. Hydrants	628.16.081 Physicochemical operations and equipment .3 Adsorption processes and equipment 628.16.081.3 $\cong$ 661.183, e.g. .32 Adsorption processes using activated carbon .084 Ultrasonic and vibration processes .085 Irradiation, e.g. with light, ionizing, ultra-violet radiation .087 Electrochemical processes, e.g. electro-osmosis .09 Special chemical processes .094 Reduction. Oxidation. pH control. Ion exchange .2 Special reduction processes .3 Oxidation. Ozonization .4 Halogenation. Dehalogenation .6 Acidification. Treatment with acids .7 Basification. Treatment with bases .8 Neutralization. Acid or base removal .9 Ion exchange
.145	Crossings. Interconnections .2 Aqueduct crossings. Bridge crossings .3 Siphons .4 Level crossings .5 Tunnels. Culverts .8 Interconnections (to and from water conduits) .85 Cross-connections (between potable and non-potable supplies)	
.146	Regulating and closing devices. Valves. Cocks. Taps 628.146 $\cong$ 621.646	
.147	Construction and maintenance of water conduit systems .1 Construction 628.147.1 $\cong$ 628.247.1 .2 Maintenance. Removal of obstructions. Repair .22 Corrosion problems →620.193 Physical and chemical influences. Corrosion. Resistance to attack 620.197 Protection of materials .23 Incrustation. Pipe cleaning and disinfection .24 Thawing of frozen conduits and pipes →621.646.974 Melting devices	
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.153	Distribution mains. Distributor pipes	
.155	Service pipes. Communication pipes (from distribution mains to consumer's premises). Supply pipes. Connections	
.156	Taps, valves and fittings in buildings	
.157	Construction and maintenance of water distribution systems 628.157 $\cong$ 628.147	
.158	Leaks. Damage. Pipe bursts	
628.16	WATER TREATMENT. PROCESSES, OPERATIONS, PLANT AND EQUIPMENT. WATERWORKS PRACTICE IN GENERAL →543.3 Water sampling and analysis 614.777 Purification of water <i>Specific processes may be denoted by the .0 special auxiliaries (especially .04/.09) listed under 66, e.g.</i> 628.16.04 Heating, thermal operations, plant and equipment .045 Heat transfer. Heat exchange .046 Thermal processes and plant .048 Distillation .06 Water purification processes and equipment .065 Precipitation. Crystallization .066 Clarification. Decantation .7 Sedimentation tanks .067 Refining. Filtration .1 Filtration (through sand or other granular medium) .3 Filtration equipment. Papers, fabric, mud or clay. Centrifugal filters .5 Centrifuging .069 Other water purification processes. Foam formation etc. .08 Physical and physicochemical operations and equipment	.161 Physical and mechanical treatment of raw water →628.162 Chemical treatment of water. Removal of impurities. Addition of chemicals 628.163 Biological treatment of water 628.165 Treatment of saline water. Demineralization. Desalination .162 Chemical treatment of water. Removal of impurities. Addition of chemicals .1 Removal of iron and manganese .2 Removal of other toxic inorganic substances .4 Water softening processes <i>Specific chemicals may be denoted by colon combination with the subdivisions of 54 or 66</i> <i>Further particulars may be denoted by the .0 special auxiliaries listed under 66, e.g.</i> 628.162.4.065 Softening by precipitation (e.g. with lime or soda) .094 Softening by reduction, oxidation, pH control, ion exchange .5 Flocculation of organic, suspended and colloidal matter. Coagulation. Detoxication .52 Processes using iron or aluminium compounds .524 Processes using aluminium compounds .526 Processes using iron compounds .53 Processes using other coagulants .531 Processes using activated silica and other inorganic agents .532 Processes using carbohydrates and their derivatives. Processes using cellulose, starch etc. .533 Processes using polyelectrolytes .534 Processes using clay .535 Processes using proteins and their derivatives .7 Reduction of aggressivity. Deacidification. Formation of protective coatings etc. .72 Processes using lime or other basic chemicals .74 Filtration through marble chips or dolomitic filter media .8 Disinfection and sterilization by chemical means →628.19 Pollution of water sources and supply .82 Ozonization .84 Chlorination. Dechlorination .841 Chlorination (with chlorine gas and chlorine compounds)

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.849	Dechlorination	628.19	POLLUTION OF WATER SOURCES AND SUPPLY (CAUSES, PREVENTION AND REMOVAL)
.85	Bromine process. Iodine process		Causes of pollution
.86	Copper sulphate process		<i>Further particulars may be denoted by colon combination, e.g.</i>
.87	Silver process	.191	628.191:551.5 Groundwater pollution by meteorological and climatological factors
.9	Addition of various chemicals to water for purposes of imparting physiological and other desirable properties to the water. Iodization. Fluoridation		:579 Bacteriological pollution. Pollution by microorganisms
.92	Addition of iodides. Iodization		:614.652 Pollution of water by cemeteries
.94	Addition of fluorides. Fluoridation		:628.394 Pollution by disposal of sewage into natural waters
.96	Addition of other inorganic chemicals		:628.4 Pollution by refuse disposal
.97	Addition of organic chemicals		:628.54 Pollution by industrial waste and effluent
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628.17.08	Motoring methods →336.283.11 Water rates 681.121 Fluid meters. Measuring devices for liquids, gases, vapours	.222	Ventilating shafts in streets Lamp holes. Inspection shafts. Ventilating columns Air shafts in buildings. Ventilation by chimneys and furnaces Ventilation pipes outside buildings Ventilation pipes inside buildings Sewer gas
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.5	Peak loads	.226	
.173	Private, domestic water consumption <i>Further particulars may be denoted by colon combination, e.g.</i> 628.173:631.675 Rate and time of application of irrigation water	.227 .228	
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.175	Industrial water consumption <i>Further particulars may be denoted by colon combination, e.g.</i> 628.175:621.182.1 Water for boiler feed :648 Water for laundries :66.013.7 Water for chemical processing :683.561 Water for bottle-cleaning	.234 .235 .237	
.176	Agricultural, rural water consumption <i>Further particulars may be denoted by colon combination e.g.</i> 628.176:626.81 Water for irrigation engineering :631.67 Water for rural irrigation	.1 .2 .238 .239	

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	624.131.53 Earth pressures (active and passive). Pressure distribution. Stability. Slip surfaces.		Composition and properties of sewage in general. Constituents
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.241	Main sewers. Intercepting sewers. Branch mains	.3	Substances in solution
.2	Outfall sewers. Ocean outfalls	.4	Measures for determining pollution strength. Biochemical oxygen demand
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.1	Construction	.3	<i>[cancelled] use 628.3(083.7), or colon to 351.777.61</i>
.11	Excavation	.4	<i>[cancelled] → 628.32</i>
	<i>Further particulars may be denoted by colon combination with the subdivisions of 624.13</i>	.5	<i>[cancelled] use 628.32:542 or .006.2</i>
.12	Foundations. Bedding	.6	<i>[cancelled] use 628.32:725.194, 628.32:712.01</i>
.13	Pipe laying and jointing	.315	<i>[cancelled] use 628.311 – 5</i>
.14	Refilling		<i>[cancelled]</i>
.15	Testing for watertightness. Standards of workmanship	.1	Sewage treatment systems
.248	Construction of monolithic in-situ sewers	.2	<i>Only general questions are classed here. For technical details of various methods → 628.33/.36</i>
	628.248 ≅ 628.247	.3	Comprehensive treatment
628.25	ANCILLARY WORKS TO SEWERS AND DRAINS	628.32	Primary and secondary treatment (mechanical and biological)
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.251	Small branches. Street connections		SEWAGE TREATMENT PLANTS
.3	Traps for street connections. Road gully traps		→725.194 Public health and sanitary buildings, structures (architectural aspects). Public lavatories. Wash-houses. Cleansing stations etc.
.252	House connections. Special connections	.321	Odour control
.253	Inspection chambers. Manholes. Lampholes		628.321.01/.09 ≅ 66.01/.09, e.g.
.1	Covers		628.321.094.35 Treatment with ozone
.2	Ladders. Step-irons	.1/.9	<i>[cancelled] use 628.321.0...</i>
.3	Vertical drop details	.322	Disinfection
.257	Valves and penstocks for sewers		628.322.01/.09 ≅ 66.01/.09
.5	Anti-flooding interceptors. Devices to prevent backflooding	628.33	PHYSICAL AND MECHANICAL TREATMENT OF SEWAGE. SEDIMENTATION. FILTRATION
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.8	Indicator plates, number plates of sewers	.12	Bar screens with manual cleaning
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		.22	Round. Circular
		.26	<i>[cancelled] use 628.334.212 – 8...</i>
		.261	Other methods
		.262	Grit washing. Grit handling. Grit disposal
		.263	Grit washing
			Elevating and conveying of grit
			Grit disposal

628.334.3	Grease removal	628.336.57	Digested sludge. Quantity produced.
.31	Tanks for gravity separation		Characteristics. Composition. Properties
.32	Tanks for aeration separation		<i>Physical, chemical and biological details may be denoted by colon combination with the subdivisions of 53, 54 and 57</i>
.33	Tanks for vacuum separation	.572	Conveying of digested sludge
.35	Grease disposal		→ 628.336.572 $\cong$ 628.336.2
.4	Foam removal	.58	Control chambers for digestion. Pipe galleries
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.22	Channels	.72	Barging to sea
.23	Elevating. Pumping	.73	Land fills. Lagoons
	<i>Further particulars may be denoted by colon combination with the subdivisions of 621.6</i>	.74	Composting
.3	Sludge preparation. Sludge conditioning		<i>For sewage and other wastes as fertilizer → 631.897</i>
.31	Sludge concentration	.79	Other methods
.32	Condition of sludge for filtration or drying	.337	Electrical treatment of sewage
.321	Conditioning chemicals	.339	Other physical and mechanical treatment of sewage
.322	Elutriation		<i>Further particulars may be denoted by the .0 special auxiliaries listed under 66, e.g.</i>
.4	Sludge dewatering. Sludge filtration		628.339.049.1 Evaporation processes
.41	Drying beds		.065.7 Embedding processes
.411	Distribution of sludge on drying beds		(mixing with other substances to obtain a solid or semi-solid mass)
.412	Removal of sludge from drying beds	628.34	CHEMICAL TREATMENT OF SEWAGE
.42	Vacuum filtration. Filter pressing	.341	Sedimentation tanks
.421	Vacuum filters	.342	Stirrers. Flocculation
.422	Filter presses	.344	Precipitation
.429	Other types of filter		<i>Specific chemicals may be denoted by colon combination with the subdivisions of 54 or 66</i>
.43	Centrifuges	.345	Coagulation
.44	Heat driers		628.345 $\cong$ 628.162.5
.45	Vacuum spray process	.346/.347	<i>[cancelled]</i> → 628.344/.345
.46	Freezing of sludge	.349	Other chemical sewage treatment
.5	Sludge digestion	628.35	BIOLOGICAL TREATMENT OF SEWAGE
.51	Mesophilic digestion	.352	Septic tanks in general
.511	In open tanks	.353	Biological filters (percolating filters).
.512	In closed tanks		Contact beds. Contact aerators
.513	Single-stage digestion	.1	Trickling filter processes in general
.514	Multi-stage digestion	.11	Types of process
.515	In combined sedimentation and digestion tanks	.111	Single-stage
.52	Thermophilic digestion	.1	Recirculation
	628.336.52 $\cong$ 628.336.51	.112	Multi-stage
.53	Sludge heating	.1	Recirculation
.531	Direct injection of hot liquids or steam	.2	Alternation of order of filters
.532	Gas burners in sludge	.12	Dosing. Regulation of flow
.533	Heating liquids in pipes inside tanks	.121	Dosing tanks. Siphons
.1	Pipes embedded in walls in floor	.122	Regulation. Partition of flow
.534	Heat exchangers outside tanks	.13	Application of sewage to filter bed
.535	Other methods of sludge heating	.131	By rotary distributors
.54	Sludge circulation	.132	By straight-line distributors
.541	By stirring	.133	By spraying and sprays
.542	By pumping	.2	With fixed nozzles
.543	Sludge withdrawal	.134	Other means of distribution
.55	Supernatant liquor. Composition	.14	Ventilation of biological filters
.551	Withdrawal devices	.141	Open filters. Natural ventilation
.553	Disposal devices	.142	Covered filters. Artificial ventilation
.56	Addition of other substances to digestion tanks		<i>For blowers → 621.51</i>
.561	Addition of refuse	.15	Filter media. Materials
	→ 628.465.6 Transport by means of sewerage	.151	Depth of filter bed
.562	Addition of screenings	.152	Size of filter medium
.563	Addition of grease skimmings		
.564	Addition of nightsoil		

628.353.153	Biological film on filter medium <i>Further particulars may be denoted by colon combination with the subdivisions of 579</i>	628.367	Drainage of land on sewage farms
.16	Treatment of filter effluent <i>Further particulars may be denoted by colon combination with the subdivisions of 628.33</i>	.369	Other matters
.2	Contact beds	.37	[cancelled] → 628.36
.3	Contact aerators	.371/.372	[cancelled] use 628.36:633/635
.354	Sand filtration	.373	[cancelled] use 628.36:614.777 and :351.777.613
.1	Intermittent sand filters	628.38	UTILIZABLE CONSTITUENTS OF SEWAGE → 628.477 Utilization of untreated and treated refuse and residues
.2	Continuous sand filters. Magnetite filters		696.139 Solid refuse disposal. Incinerators for local use
.355	Forced aeration	.381	Utilization of sludge as fertilizer <i>For sewage and other wastes as fertilizer</i> → 631.879
.356	Activation methods. Activated sludge process	.1	Preparation. Composting
.1	Diffused-air aeration	.2	Fertilizer value
.11	Air-diffuser plates	.3	Marketing
.12	Air-diffuser tubes	.382	Utilization of screenings as fertilizer 628.382 ≅ 628.381
.14	Air pipes and fittings	.383	Utilization of grease, fat, oil
.15	Air cleaners <i>Further particulars may be denoted by colon combination with the subdivisions of 621.51</i>	.1	Preparation
.2	Mechanical aeration	.2	Manufacture of by-products
.21	Vertical lift type aeration	.3	Use as fuel
.23	Revolving brush or vane type aeration and compressed air aeration	.384	Utilization of grit
.3	Aeration tanks	.385	Gas recovery
.31	Ridge and furrow type aeration tanks	.1	Preparation. Washing. Purification
.32	Spiral flow type aeration tanks	.11	Removal of sulphur compounds
.33	Oxidation trenches	.12	Removal of carbon dioxide
.39	Other types	.13	Removal of other impurities
.4	Re-aeration	.14	Compression of gas
.41	Re-aeration channels and tanks	.2	Utilization of gas in stationary engines
.5	Final sedimentation tanks	.3	Utilization of gas in vehicles
.51	Circular sedimentation tanks <i>Further particulars may be denoted by the – 8 special auxiliaries listed under 62, e.g. 628.356.51 – 86 Mechanical desludging – 87 Manual desludging</i>	.4	Utilization of gas in water heating
.52	[cancelled] use 628.356.51 – 8	.5	Utilization of gas in manufacture of by-products
.53	Rectangular sedimentation tanks <i>Further particulars may be denoted by the – 8 special auxiliaries listed under 62, e.g. 628.356.53 – 86 Mechanical desludging – 87 Manual desludging</i>	.6	Sludge gas burners
.54	[cancelled] use 628.356.53 – 8	.387	Utilization of final effluent
.56	Effluent channels → 628.357.2 Lagoons for effluent treatment	.1	Effluent for domestic use
.57	Excess activated sludge	.2	Effluent for industrial use
.6	Pretreatment before aeration	.3	Effluent for irrigation → 628.36 Land treatment. Sewage farms. Utilization of sewage water in agriculture
.61	Sedimentation		631.879.2 Sewage — Agriculture
.62	Pre-aeration	.4	Effluent for groundwater recharge
.63	Biological filtration	.388	Utilization of radioactive waste products → 621.039.77 Utilization of wastes, fission products
.64	Chemical treatment	628.39	DISPOSAL OF UNTREATED, UNUSABLE SEWAGE INTO NATURAL ENVIRONMENTS. POLLUTION OF WATER, SOIL AND AIR. PREVENTIVE MEASURES → 351.777 Soil and air pollution control
.357	Sewage ponds. Fish ponds		Water and waste control
.1	Lagoons for complete treatment of sewage		543.3 Water sampling and analysis
.2	Lagoons for effluent treatment		614.7 Hygiene of the air, water and soil
.3	Fish ponds → 626.886 Fish ponds — Agricultural hydraulics	.392	628.47 Disposal and utilization of urban refuse
	639.311 Fish culture in ponds	.393	[cancelled] use 628.394(26)
.4	Ponds for treatment by aquatic plants	.394	[cancelled] use 628.394(28)
.5	Circular, rectangular ponds etc. 628.357.5 ≅ 628.356.5		Disposal of sewage into natural waters, the sea, rivers, lakes. Water pollution <i>The type of natural water may be denoted by the (26) and (28) common auxiliaries of place (Table 1e)</i> → 628.472.7 Dumping of refuse into the sea, lakes or watercourses
.6	Pretreatment before aeration 628.357.6 ≅ 628.356.6		628.541 Discharge (of industrial, trade wastes) into watercourses
628.36	LAND TREATMENT. SEWAGE FARMS. UTILIZATION OF SEWAGE WATER IN AGRICULTURE → 631.879.2 Sewage — Agriculture	.1	Primary pollution of waters
	626.84 Methods of irrigation	.12	Pollution by organic wastes
.361	Application of sewage to land. Sprinkling	.14	Pollution by inorganic wastes
.362	Irrigation by furrows, trenches	.17	Pollution by poisonous wastes
.363	Broad irrigation	.2	Secondary pollution of waters. Eutrophic pollution
.364	Subsurface irrigation	.4	Self-purification of waters
.365	Intermittent earth filtration	.6	Preventive measures → 628.515 Measures against pollution of water
.366	Irrigation appliances		

628.395	Disposal of sewage into the atmosphere →628.511 Measures against dust 628.512 Measures against noxious gases and vapours 628.52 Special measures against industrial fumes (effluvia) and noxious odours	628.4.042	Easily decomposed (biodegradable) refuse. Food remains. Garbage. Garden and park refuse. Straw. Textile, leather waste
.396	Disposal of sewage into the soil, geological strata and underground caverns →628.516 Measures against pollution of the soil	.043	Refuse that is not easily decomposed. Wood, pulp waste. Slag, clinker. Rubble. Glass, metal, plastics, rubber refuse
628.4	URBAN HYGIENE. REFUSE. REFUSE COLLECTION AND DISPOSAL →628.3 Sewage. Surface and foul water. Properties and treatment	.045	Chemical and explosive refuse. Poisonous or toxic waste (such as materials containing mercury, chrome or cyanide, concentrated acids or liquors). Injurious or noxious decomposition products (such as fluorine, chlorine, nitrous fumes) →620.261 Explosives 620.266.1 Poisonous (toxic) substances 620.268 Corrosive substances
Special auxiliary subdivisions for 628.4		.046	Refuse likely to cause infectious diseases. Waste from hospitals, doctors' surgeries and other medical establishments. Waste from pathological and bacteriological establishments. Corpses, cadavers. Refuse from research and nursing establishments etc. →620.266.2 Infectious substances
628.4.02	Design, organization, management etc. <i>Further particulars may be denoted by colon combination, e.g.</i> 628.4.02:332 Land aspects :336.2 Taxes. Rates :347 Civil law aspects :351.777 Soil and air pollution control :65 Management aspects :657.47 Costing. Cost accountancy	.047	Radioactive refuse, waste →620.267 Radioactive substances 621.039.7 Radioactive waste management 628.388 Utilization of radioactive waste products
.03	Origin and quantity of refuse <i>The state of aggregation may be denoted by the – 404/– 405 special auxiliaries listed under 62 (→ note under 628.4.04)</i>	.06	Analytical procedure <i>Further particulars may be denoted by colon combination with the subdivisions of 543.21.9</i> .061 Qualitative analysis .062 Quantitative analysis
.032	Domestic refuse (solid waste from households, hotels, catering establishments, canteens). Meal remains. Kitchen refuse. Waste paper. Ashes, cinders. Useless small objects	.08	Measurement, determination, evaluation and calculation of the amount of refuse or waste
.033	Highway refuse (refuse obtained from street cleaning). Street dirt, dust. Market refuse. Litter. Fallen leaves etc. Strawn material from surface treatment, especially during winter	Principal divisions (continued)	
.034	Business, industrial and trade refuse (not derived from materials for products). Packaging materials. Fuel residues. Office refuse. Rags	628.41	<i>[cancelled]</i> → 628.42
.035	Bulky refuse or goods (unsuitable for ordinary receptacles because of their bulk). Broken furniture. Large boxes, chests etc.	628.42	LATRINES. CESSPOOLS. COLLECTION AND DISPOSAL OF EXCRETA →625.748.26 Public conveniences 696.14 Sanitary installations and fittings (fixtures) in buildings 725.194.4 Public lavatories, urinals — Architecture
.036	Debris, rubble, rubbish etc. from construction or demolition works	.422	Bucket latrines
.037	Derelict or wrecked cars. Old car tyres. Scrap metal	.423	Pit latrines
.038	Industrial and trade refuse (refuse derived from production processes or from materials for products). Defective products. Faulty goods <i>Refuse from specific industries may be denoted by colon combination with the subdivisions of 66/69</i> →628.4.034 Business, industrial and trade refuse 628.544 Treatment of solid waste	.424	Other arrangements. Soil-spreading devices
.04	Kinds of refuse <i>Materials may be denoted by the – 03 common auxiliaries (Table 1k)</i> <i>The form or state of material may be denoted by the – 4 special auxiliaries listed under 62, e.g.</i> 628.4.04 – 404 Liquid refuse .1 Mobile liquids (such as alcohol and other solvents) .2 Viscous liquids (such as oil slurry, coal sludge) .9 Semi-colloidal, pasty liquids (such as clayey, bituminous waste) – 405 Solid refuse (wood, paper, leather, plastics, rubber, metal, glass etc.)	.425	Public conveniences (generally)
		.427	Collection, transport and disposal of excreta
		.2	Collecting vessels
		.3	Collecting vehicles (suction vehicles for faecal matter)
		.4	Transport barrels
		.5	Emptying contents of latrines, cesspools into foul sewers →621.647.7 Flushing apparatus
		.43/.431	<i>[cancelled]</i> → 628.424
		.44	<i>[cancelled]</i> → 628.4.03/.04, 628.46/.47
		.441	<i>[cancelled]</i> → 628.463
		.443/.443.6	<i>[cancelled]</i> → 628.46/.47, especially 628.463
		.444/.444.7	<i>[cancelled]</i> → 628.427
		.445	<i>[cancelled]</i> → 628.465.6
		.448	<i>[cancelled]</i> → 628.462.2
		.449	<i>[cancelled, superfluous]</i>
		.45	<i>[cancelled]</i> → 628.425
		628.46	URBAN CLEANSING. COLLECTION AND TRANSPORT OF REFUSE <i>Details of equipment and vehicles may be denoted by colon combination with the subdivisions of 621.6 or 629</i> Urban cleansing. Highway cleaning →625.768 Continuous minor maintenance work. Road cleansing — Highway engineering
		.462	Paper bins, litter bins (on streets etc.)
		.2	Sprinkling and washing of streets etc.
		.3	Sweeping. Suction cleaning
		.4	Scattering. Winter scattering services.
		.8	Gritting etc.