



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

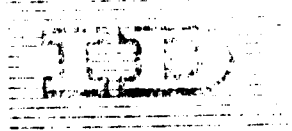
CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org



DOO 922



Distr.
LIMITED
ID/WG.57/3
17 April 1970

United Nations Industrial Development Organization

ORIGINAL: ENGLISH

Working Party on Industry Profiles
Beirut, Lebanon, 4 - 7 May 1970

THE ANALYTIC. PROFILES

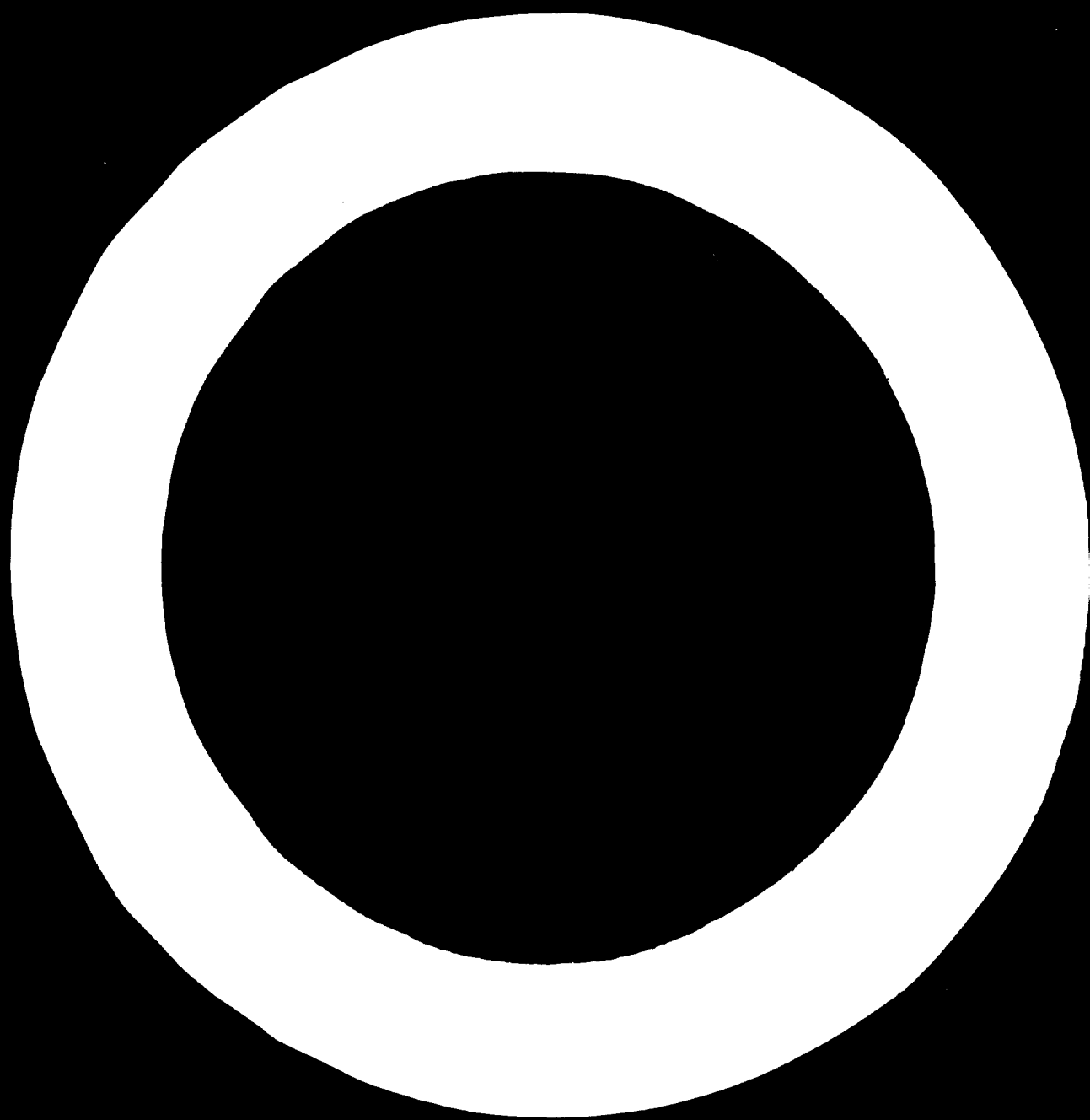
DRAFT QUESTIONNAIRE,
ORIENTED TO THE METALWORKING INDUSTRIES^{1/}

by

Thomas Vietorisz
Professor of Economics
New School for Social Research
New York

^{1/} The views and opinions expressed in this paper are those of the consultant and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.



INTRODUCTION

The present document is a draft of a fourth-generation questionnaire^{1/} in the UNIDO series, Profiles of Manufacturing Establishments. It differs from its predecessors, and particularly, from the latest version, "Standard Questionnaire Form for the Compilation of Primary Information for Profiles of Manufacturing Establishments," ID/WG.23/6, November 1968, in the following principal ways:

1. It greatly expands the information sought at the technical unit level, and to that end provides a pre-specification of the main reference processes that provide a framework for technical diagnosis and planning of the industry of a developing country.
2. It is oriented toward a single large group of industries, the metalworking industries. The definition of the questionnaire, however, attempts to use this industry as a pilot case for the definition of similar questionnaires, to be drawn up with special orientation to other individual industrial sectors at a later time.
3. It classifies the information sought into three orders of priority, in order to enable inquiries to be undertaken at different levels of detail, consideration being given to the aims of the inquiry in hand and to the degree of co-operation that can be expected from responding industrial establishments. The full set of questions included under the lowest priority imposes a large burden both on the respondents and on the enumerators, since it comprises the full set of questions of the earlier questionnaire, plus a large amount of additional detail.

^{1/} The definition of the fourth-generation questionnaire is presented in the form of revisions of and additions to UNIDO's Standard Profiles Questionnaire (ID/WG.23/6, November 1968).

In order to facilitate comparison of the earlier (third-generation) questionnaire and the proposed fourth-generation version, and also to cut down on the clerical effort required for reproducing the present discussion draft, the earlier questionnaire, as embodied in the document cited above^{1/}, has been used as the physical basis for presenting the fourth-generation version. Additions, revisions, and priority decisions pertaining to individual questions are marked, in so far as possible, on the original sheets of the above questionnaire, to be referred to hereinafter as SQF. In order to maintain the continuity of comparison, all pages of Parts I and II of SQF, from page 1 to page 43 inclusive, are reproduced in their entirety. Materials added to these reproduced pages can be distinguished from the original contents of SQF by the difference in typeface, and are further set off by the code symbol # introducing each item.

Part III of SQF is not reproduced. This entire section is assigned Priority C (lowest) from the point of view of inquiries emphasizing the technical unit level.

Where necessary, entire pages have been added. Pages are numbered consecutively, with the paging distinguished by the usual code symbol #, e.g., page #1, page #2, etc. In addition, the page of SQF where the insertion occurs is also specified in the paging of the new sheets.

Priorities

The priorities assigned to individual questions are determined by the objectives of the inquiry. It is posited that the objective of the fourth-generation questionnaires is the compilation of data that will add a new dimension of depth at the technical unit level

^{1/} ID/WG.23/6, November 1968

to existing information on Profiles of Manufacturing Establishments. This additional depth is desired as a diagnostic and programming aid in connection with the formulation of developmental policy for the industrial sector in a particular country; data collected by means of the questionnaires in such a country may then be added to the Industry File System of the country, in addition to enriching UNIDO's reference collection of its "zoo of live specimens". Direct programming and policy use in a country, and inclusion in the UNIDO Profiles, are thus two alternative applications of the information elicited by means of the proposed new version of the questionnaire.

In defining the priorities, most of the questions in Part I and Part II of the SQF form have been given Priority A, with the exception of some materials requesting substantial numerical detail. Part III of SQF has been given Priority C. In regard to the additions introduced, the following policy was followed: materials requesting a technical-economic description of the existing productive structure were assigned priority B; while materials requesting the estimation of new technical alternatives were assigned Priority C.

The additions to the SQF version have been based on the proposed planning and programming methodology for the metalworking sector embodied in the forthcoming UNIDO document Planning and Programming of Metalworking Industries with Special View to Exports,^{1/} as well as on other documents prepared for the Expert Working Group on Metalworking Industries as Potential Export Industries in Developing Countries.^{2/} This methodology emphasizes capacity balancing, comparative-cost estimates, and technological upgrading. It reduces the variety of production facilities to the definition

^{1/} By T. Victorisz and R. Lissak, in press; preliminary version available as UNIDO document ID/WG.10/1 and ID/WG.10/2, 17 February 1969.

^{2/} 12-19 December, 1969; UNIDO document series ID/WG.10.

of unit productive or auxiliary shops; and cuts across the variety of distinct products by the selection of limited numbers of representative products. The latter can then be decomposed into inputs consisting of subassemblies, components, purchased services, and processing requirements -- with these processing requirements expressed in shop hours or other physical units that can be directly related to shop capacities.

Designation of priorities

In the body of the questionnaire, priorities are indicated by capital letters that are circled, i.e.,

(A) , (B) , (C) .

These priorities are generally indicated after section headings, and refer to the entire section except as specifically noted thereunder.

Comment on the present draft version

The presentation of the present draft version has been aimed at providing an overview of the questionnaire as a whole for discussion and evaluation. The physical sequence of the earlier SQF version has therefore been maintained, even at the expense of occasionally cumbersome section sequencing and page sequencing for the additions. This will facilitate the comparison of the SQF and the present versions. It goes without saying, however, that the present version is completely unsuited to field work. For the latter purpose, three separate versions will have to be prepared corresponding to priorities A, B, and C, and the sections will have to be editorially rearranged into proper page sequence. Supplementary sheets for several sections will also have to be provided, as specified in the body of the questionnaire. All of this editorial work will have to await agreement on desirable modifications, following discussion and preferably field trials.

UNITED NATIONS  NATIONS UNIES
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

- # This is page 1 of SQF, reproduced in its entirety. See comment below.
- # Pp. 1-43 (Parts I-II) of SQF are reproduced in their entirety, including pages with no revisions or additions.

STANDARD QUESTIONNAIRE FORM

FOR

THE PROFILES OF MANUFACTURING ESTABLISHMENTS

with Explanatory Notes

	PAGE
PART I BASIC DATA (ESTABLISHMENT SCHEME)	4 - 25
PART II EVALUATION (EXPERT'S REPORT)	26 - 43
PART III ENTERPRISE SUMMARY DATA (ENTERPRISE SCHEME)	44 - 54

Part III is classed as Priority C and is not reproduced.

STANDARD SYMBOLS AND NOTATIONS RECOMMENDED

- 0 Insignificant or less than half of the unit adopted
- Nil or not applicable
- " Same as above
- * Very rough estimate
- [] Figure listed but not to be included in the relevant total
- () Specific component(s) of the total amount or item already indicated (i.e. "of which ...")
- CO Central Office
- M Mega or million (1,000,000)
- k kilo (1,000)
- 000 Thousand (1,000)
- h hecto (100)
- da deka (10)
- d deci (1/10)
- c centi (1/100)
- m milli (1/1000)
- x² square x
- x³ cubic x
- t metric ton (= 1,000 kilograms)

For length, area, volume, and weight, the metric system is preferred.

GENERAL NOTE

- This standard questionnaire form is intended to provide a prototype suitable for the compilation of all the necessary data for the Profiles of Manufacturing Establishments.

Each expert team participating in this project may feel free to re-arrange the various questions in this standard form in a manner that is the most convenient for actual compilation.

- This standard form consists of three parts:

PART I constitutes the main body, which is designed for the compilation of basic quantitative data for each selected establishment (or firm). The personnel of the establishment (or firm) considered may in many cases be capable of filling out this part for themselves. # See addition next page (# 8)

PART II is to be filled out by the expert team, after examination of the data given in Part I, for the purpose of ensuring the consistency of the given data, clarifying any conceptual or arithmetic ambiguities and providing qualitative or descriptive information that is important in grasping the major structural and functional characteristics of the establishment (or firm) considered. It is expected that the completion of Part II requires the expert team's visits to the factories and direct consultation with the personnel of the firm. Many of the questions in this part are thus meant to collect the team's own professional views concerning the characteristics of the given establishment or firm. # See addition next page (# 8)

PART III is an addendum to Part I, and is applicable only if two or more branch establishments or factories of a given firm (each establishment being sufficiently large and/or complex and requiring a full Part I form for the description of its characteristics) have to be covered to complete the picture of the economically self-contained activity unit. In other words, this form is to be filled out when the object of study of Part I (as specified in Part II, section I.B.) relates to one of the branch establishments of a managerially centralized enterprise and if this branch is dependent on the central office of the enterprise for its managerial routines (i.e. does not possess enough branch accounting system of its own to complete all the sections of Part I). In such cases, it is desirable that all the manufacturing branches of the same enterprise be covered, Part I being filled out for each of them, separately, to the fullest possible extent. Part III is thus designed as a covering document describing the characteristics of such a complex enterprise as a whole.

Priority C

Questions pertaining to information at the technical-unit level are included in Part I. If the establishment has a capable engineering staff, good response to this part may be obtained as the personnel of the establishment (firm) fills out this part on its own. Typically, however, answers of a more technical nature require careful double checking by the expert team, both from the technical and from the economic point of view.

The most important expansion of the questionnaire occurs in Part II, especially section B. It is expected that the completion of part II will require visits to the factories by the expert team, and repeated interviews with engineering, accounting, and production personnel. Only in exceptional cases will the required information be readily at hand. The data will generally have to be pieced together from materials handled by different organizational units within the establishment (firm) and these diverse sources will have to be checked against each other repeatedly. It is to be expected that production, accounting, and design data will exist in different formats, with gaps and partial overlaps, which have to be, respectively, filled by original estimates or reconciled. Even if detailed information exists, for example, from standard-cost accounting sources, it has to be reviewed in order to identify hidden assumptions underlying the allocation of joint costs and other conventional accounting procedures, since these may not be acceptable from the point of view of developmental planning.

PART I

B A S I C D A T A
(ESTABLISHMENT SCHEME)

	SQF Page	#
I. <u>General Description</u>	6	11
II. <u>Products and Annual Output</u>	8	14
III. <u>Annual Consumption of Materials and Energy</u>	10	19
IV. <u>Value Added</u>	12	22
V. <u>Manning Table and Working Time</u>	14	25
VI. <u>Monthly Gross Wages and Salaries</u>	16	28
VII. <u>Fixed Capital Assets</u>	18	30
VIII. <u>Working Capital</u>	22	35
IX. <u>Other Information</u>	24	37

- This Establishment Scheme is used to compile mainly quantitative characteristics of the productive facilities and activities of each given firm or establishment selected as the object of this Profile study.

- In case any transactions take place between different establishments of the same enterprise, such intra-firm transactions should be treated analogously to regular business transactions. The intra-firm accounting prices which may be applied to the valuation of such transactions should be essentially comparable to normal market prices.

Ad I. A.: - Kind of activity: Indicate the primary product group or the industry under which the establishment (or firm) is classifiable (e.g. in terms of the National Industrial Classification Code).

- Year of reference: The year of 1967 is preferred; the years of 1965 and 1966 are acceptable. The business year, not necessarily conforming to the calendar year, is acceptable. Please note that the same year of reference should be maintained throughout the different sections of this study.

Ad I. B.: Ad 1., 2.
and 3.

- Sub-sections 1., 2., and 3. are applicable only if the establishment (or firm) in its present form is less than 20 years old. However, if an older firm has undergone such a substantial transformation or expansion since 1945 that establishment (or firm) in its present form can be considered as less than 20 years old, these questions should be answered with reference to the period following the transformation.

Ad 3.: - The break-even point is the level of output (expressed in terms of value or quantity of annual output) at which the revenue exceeded expenditures for the first time.

Ad 4.: - Please enumerate and briefly describe all major expansion or replacement investments since 1955. The type of investment may refer to the product-mix; process machinery and equipment; other primary or auxiliary production facilities and administrative or welfare facilities.

- Milestone products refer to newly added single products for each investment period that represent the largest size or highest level of technical sophistication attained during the period (e.g., for electric motors, specify largest HP manufactured during period, etc.)

Ad 5.: - Complete this sub-section only if

- (1) entries made under I.B.4. imply a substantial change in product-mix or production techniques or
- (2) the observation given in I.B.3. is not quite meaningful for the establishment (or firm) in its present form.

(A)

A. COUNTRY:

KIND OF ACTIVITY:

YEAR OF REFERENCE: from 19 to 19

EXHIBIT NUMBER: <input style="width: 90%; height: 15px;" type="text"/>
NUMBER OF ESTABLISHMENT: <input style="width: 90%; height: 15px;" type="text"/>

OWNERSHIP:

- () Wholly privately owned enterprise
- () Wholly government-owned enterprise
- () Semi-governmental enterprise (mixed ownership)

- governmental %

- private %

If it is a joint venture of foreign and domestic capital indicate the share of each party in the total capital stock:

Domestic %

- governmental %

- private %

Foreign %

I. B. HISTORY OF PRODUCTION AND INVESTMENT:

1. Year in which the construction of the factory was first started:

2. Year in which production was first started:

- trial production

- commercial production

3. Level of output at which the break-even point was surpassed for the first time: (000)

4. Has a significant expansion or replacement investment taken place since 1955? () yes () no

If para. I. B. 4. yes:

Investment period	Approximate amount invested (000)	# Type of investment	Type of investment	# Milestone products
-				
-				
-				
-				

5. a) During/or after the most recent of these investments, did the establishment incur a substantial operating loss? () yes () no

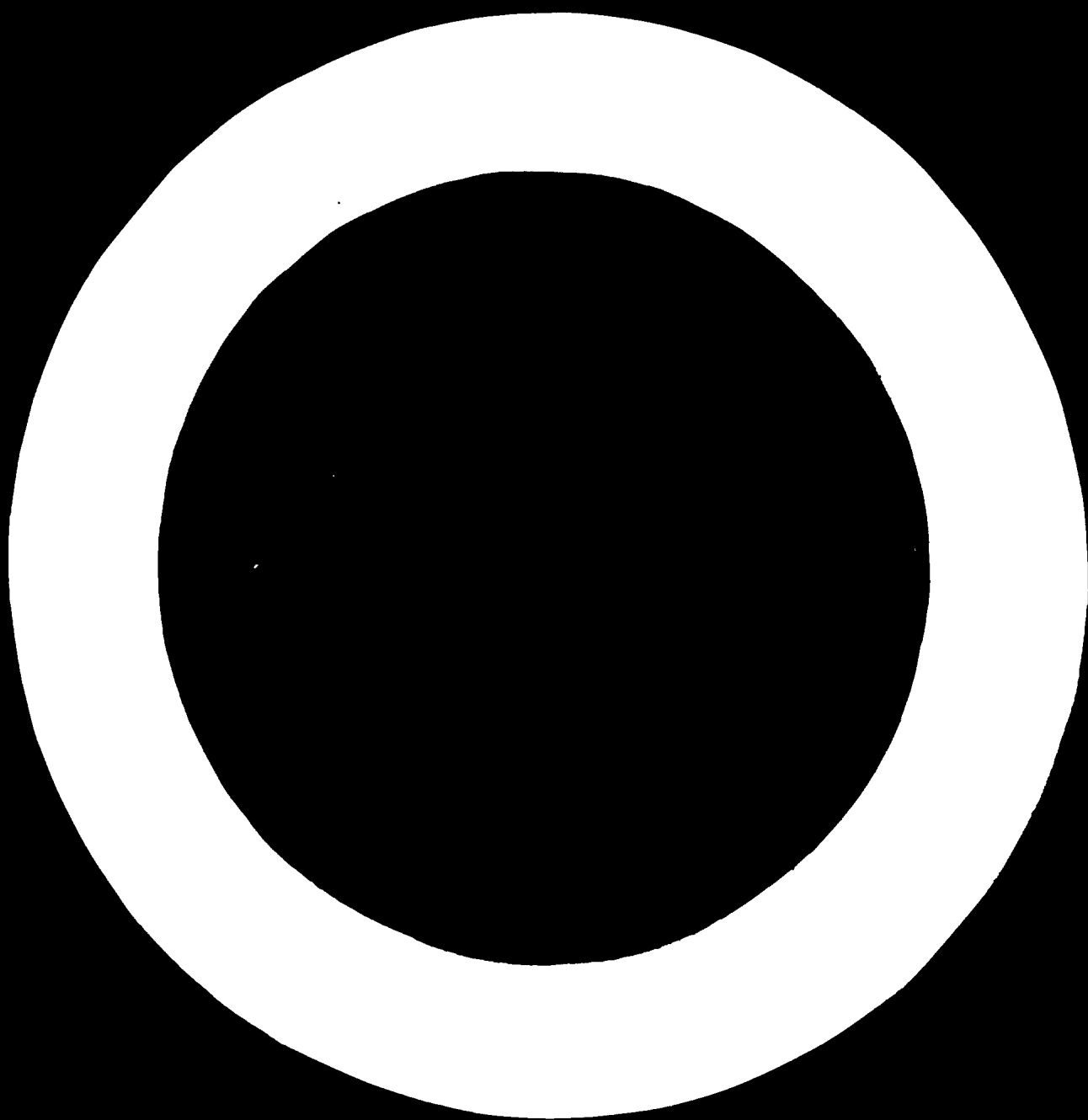
b) If yes, when did the establishment cease to incur such losses?

c) What was the level of output when operating losses ceased? (000)

d) Was any trouble encountered with milestone products? Have any been abandoned during an investment period? _____

Ad II.A.: Within each of these, there will typically be a few dozen to hundreds of specific products or product groups.

The number of major product lines should generally follow the number of producing departments within the establishment. When an establishment is organized around productive facilities -- e.g., foundry, forge, machine shop -- rather than around lines of products, an attempt should nevertheless be made to identify and describe the major product lines, and to estimate the information requested.



EXPLANATORY NOTES

II. - Those business transactions which are not connected with the current productive activities should be excluded (revenue from re-sales, capital gains on investment, inventory revaluation etc.).

Ad II. A.: - The classification of products in ~~specified products~~ ^{major product lines} should be given in order of importance of their outputs and in enough detail for a precise indication of the product-mix.

Insert from page # 12

If the establishment (or firm) has a very extensive product-mix, use an additional sheet, if necessary, or classify the products by groups of production. The coverage of the specified products should be sufficiently high to ensure that the total value of other products (see last line of II.A.) does not exceed 30% of the total marketable output. Other products may be described in value units only. The following items should be so specified and included.

- Marketable by-products
- Marketable processing wastes
- Revenue from contract and commission work.

However, the following items should be excluded from the annual output:

- Sales of scrapped capital assets
- Revenue from re-sales (goods purchased from outside and resold without receiving any further fabrication).

- Year when first produced refers to the year in which the given product ^{line} was first introduced in the establishment's product-mix; if various products are involved in a given group, then an approximation can be made for a period of years (e.g. 1948-1955).

- Unit of weight or measurement should be expressed in terms of the metric system. When various products are shown as a group, an approximation of the total weight or volume is desired.

- Nominal capacity output may not be exactly identifiable for all ^{product lines} ~~individual products~~ especially when the product-mix of the basic production processes is flexible. For the latter case, indicate approximate capacity output levels achievable with the same pattern of product-mix as the actual.

- Marketable output is defined as the amount of products produced for sale. In this connexion, particular attention should be paid to how the establishment (or firm) treats the net annual decumulation or accumulation of inventories in identifying the annual revenue output. From the standpoint of this study, the value of gross production actually materialized during the given 12-month period is of primary interest, and hence it is assumed that all the products produced during this period are sold during the same period.

- Internal consumption is that part of the output of intermediate products which was self-consumed by the establishment (or firm) considered for further processing, while the rest was sold.

- Unit price ex-factory exclusive sales tax refers to the market price applicable to the delivery at factory, excluding any sales tax, no matter whether the latter is actually collected by the establishment (or firm) considered.

- Total value of marketable output is the value of all products which are produced for sale excluding the internal consumption during the 12-month period. Sales tax should be excluded.

Ad II. B.: - Total annual gross revenue output will not normally equal the revenue from annual sales as recorded in the sales records or firm's profit and loss statement since the gross revenue output is defined as the value of annual production, excluding the special revenues arising from those business transactions not connected with the current productive activities.

When using the firm's sales record or profit and loss statement the following items should be excluded from annual sales of products:

- revenue from re-sales
- sales of scrapped capital assets
- other special revenue not connected with the establishment's (or firm's) current productive activities.

- Change in inventories is the increase (+) or decrease (-) in the value of finished marketable products and work-in-process from the beginning to the end of the 12-month period considered.

- It is expected that the annual gross revenue output as calculated in II.B. will be very close to the similar sum obtained at the bottom of the table of II.A.

Ad II. C.: - Western countries are: OECD-countries, other Western European countries, South Africa, Australia, New Zealand.

- Eastern Europe are: COMECON countries, Albania, Peoples Republic of China, North Korea, North-Vietnam and Outer Mongolia.

- Developing countries are: Asia excluding Japan and countries classified elsewhere; Africa excluding South Africa; Middle East.

- # and II.AA.: - This section refers to specific products or product "groups." For example, within the major product line of integral horsepower electric motors, a 1-phase, 220 Volt, 2 HP electric motor built to NEMA standards would be a specific product. A product "group" is defined in the technical sense: several specific products may be classed as forming a product "group" if they have such a close technical interrelationship that they can be produced with a single production run, requiring only minimal interruptions for machine or tooling adjustments when switching over from one member of the "group" to another. For example, 4 and 5 HP electric motors may form a single "group," but not motors of 1-50 HP.
- What is wanted here is essentially a list of individually specified products within each major line of production. No more than 30% of the total output of each major line of production should be left in the final category of "other" products. The listing of individual products is useful even where no detailed quantitative estimates are feasible. In such cases, an attempt should be made at least to estimate rough percentage distributions, by physical or value units.
 - Observe remarks under II.A. concerning inclusion and exclusion of items and further remarks following.
 - Number of units per production run. Give the number of units of product produced in a single series. If yearly output is divided by this number, the result is the number of production runs each year.

II.AA. SPECIFIC PRODUCTS OR GROUPS OF PRODUCTS WITHIN EACH MAJOR PRODUCT LINE:



Fill out a separate sheet for each major product line as listed in Sec. II.A.

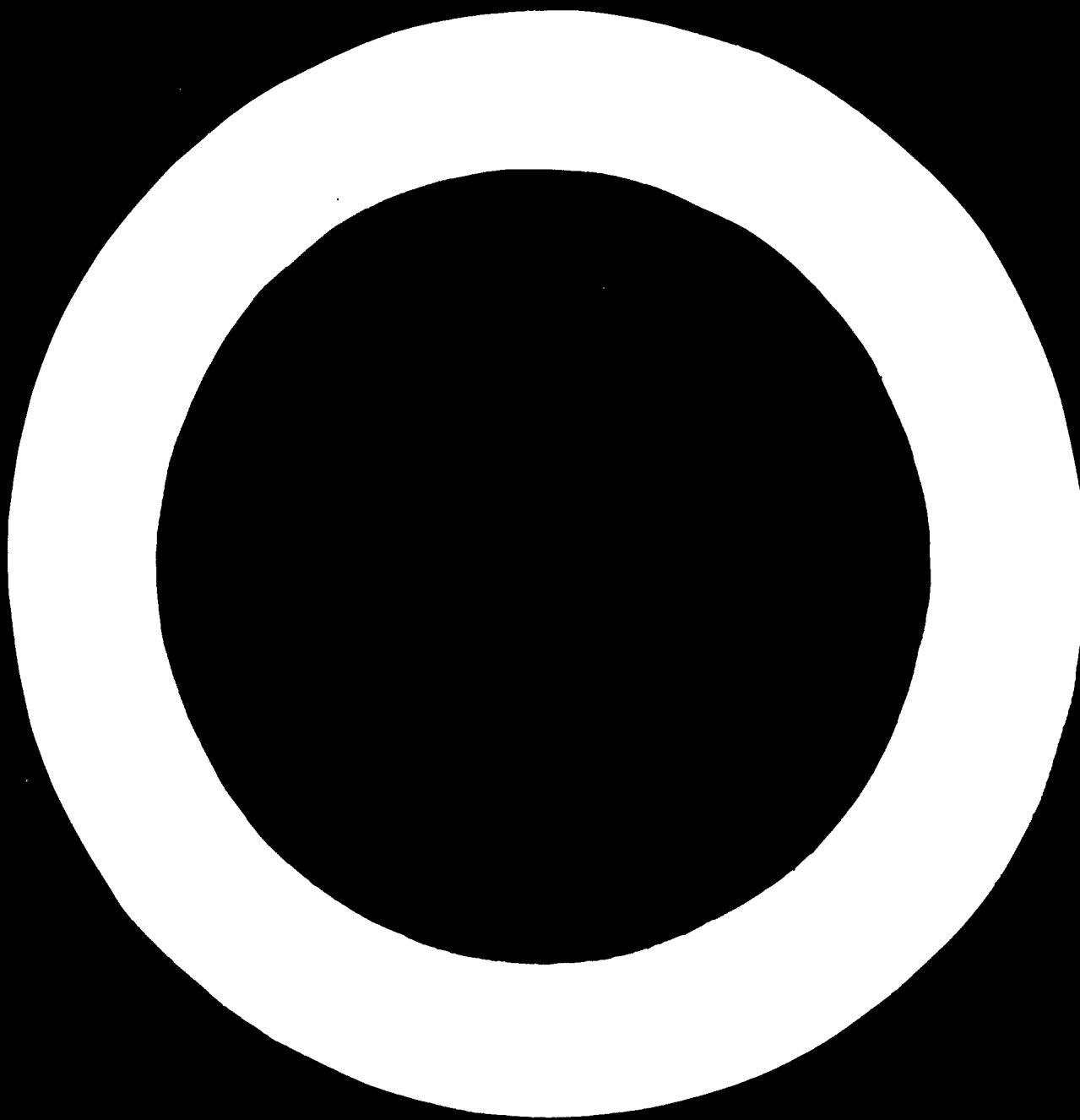
Major product line No. _____ Designation: _____

#

Specific product (or group of products)	Year when first produced	Unit	Quantity of annual production			Unit price ex- factory excl. sales tax	Total value of marketable output (000)	Unit per prod- uct
			Nominal capacity output	Marketable output	Internal consumption			
- Other non-specified products								

Total annual gross revenue output for major product line

(Use additional sheets for each major product line.)



EXPLANATORY NOTES

inputs required for the 12-month period considered. Of course, materials purchased on capital account, namely investment expenditures, especially the material used for production of own equipment within the establishment, if any, should not be included here.

Ad III. A.: - Specific production materials should be listed in terms of normal commercial usage. In the event the particular industry involves packaging as a major process (i.e. food canning and bottling industry) packaging materials should be treated as direct production materials. The same applies to petroleum and coal in the petro-chemical and coal-chemical industries.
Fees paid for contract and commission work should be entered in III.D. and not here.

- For unit see the note for II.A.
- Quantity consumed stands for the amount of material consumed within the year of reference, irrespective of whether it was purchased in that period or taken from stocks.
- Information on internal supply is requested only for those materials or semi-finished products which are partly acquired from outside and partly produced by the establishment.
- Unit price as paid by the establishment (or firm) is the price inclusive of freight and insurance costs, import duties and taxes.
- Total value of purchase c.i.f. corresponds to that part of quantity consumed which has been purchased from external suppliers, excluding the value of internally supplied material (if any).
- Note that import duties involved in the imported part of the purchased material are supposed to be already included in the total value of purchase, c.i.f. Use the symbols '()' (of which) or '+' (plus) to indicate whether the import duties are included in the total value of purchase c.i.f. or not, and indicate the amount in the relevant box.

Ad III.AA.: Observe remarks for III.A.

Ad III. B.: Ad 1.: - Describe in the parentheses the major elements of packaging material involved. See also explanations under III.A.

Ad 2.: - Parts and supplies used for regular maintenance of production equipment (including miscellaneous hand tools not considered as capital assets) are distinguished from production materials and entered here.

Ad 3.: - Other materials and supplies used for non-manufacturing activities refer primarily to those used in administrative work.

Ad III. C.: - For the column headings, see the notes for III.A.

Ad III. D.: - If there is any contract and commission work performed by subcontractors on the materials supplied by you, enter the total fee paid during the year considered.

Ad III. E.: Ad 2.: - Of this item, other business services purchased may include

- legal and consulting costs
- insurance fees (other than those included in the c.i.f. costs of production materials)
- expenses for training services purchased
- executive expenses (e.g. business entertainment, staff travel allowance, etc.)

- However, the following items should be excluded from this sub-section:

- non-wage, non-salary payments to workers (e.g. subsidies for housing, transportation, canteen and other welfare activities (IV.A.4)
- rentals (IV.A.6)
- royalties paid (IV.A.7)
- sales taxes and other indirect business taxes (IV.A.8 and 9)
- income taxes withheld and to be paid
- dividends.

UNITED NATIONS  **NATIONS UNIES**

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

VI. ANNUAL CONSUMPTION OF MATERIALS AND ENERGY

II. A. DIRECT PRODUCTION MATERIALS: A

Specific production material	Unit	Quantity consumed		Unit price c.i.f. (000)	Total value of purchase c.i.f. (000)	% im- ported	Import duties (000)
		Purchase	Internal supply				
# Electric motors	HP						
# Other prime movers	HP						
# Iron and steel raw mate.	ton						
# Copper raw materials	ton						
# Aluminum raw materials	ton						

Total value

III.AA. DIRECT PRODUCTION MATERIALS BY MAJOR PRODUCT LINES: See page # 20

II. B. OTHER MATERIALS AND SUPPLIES: B

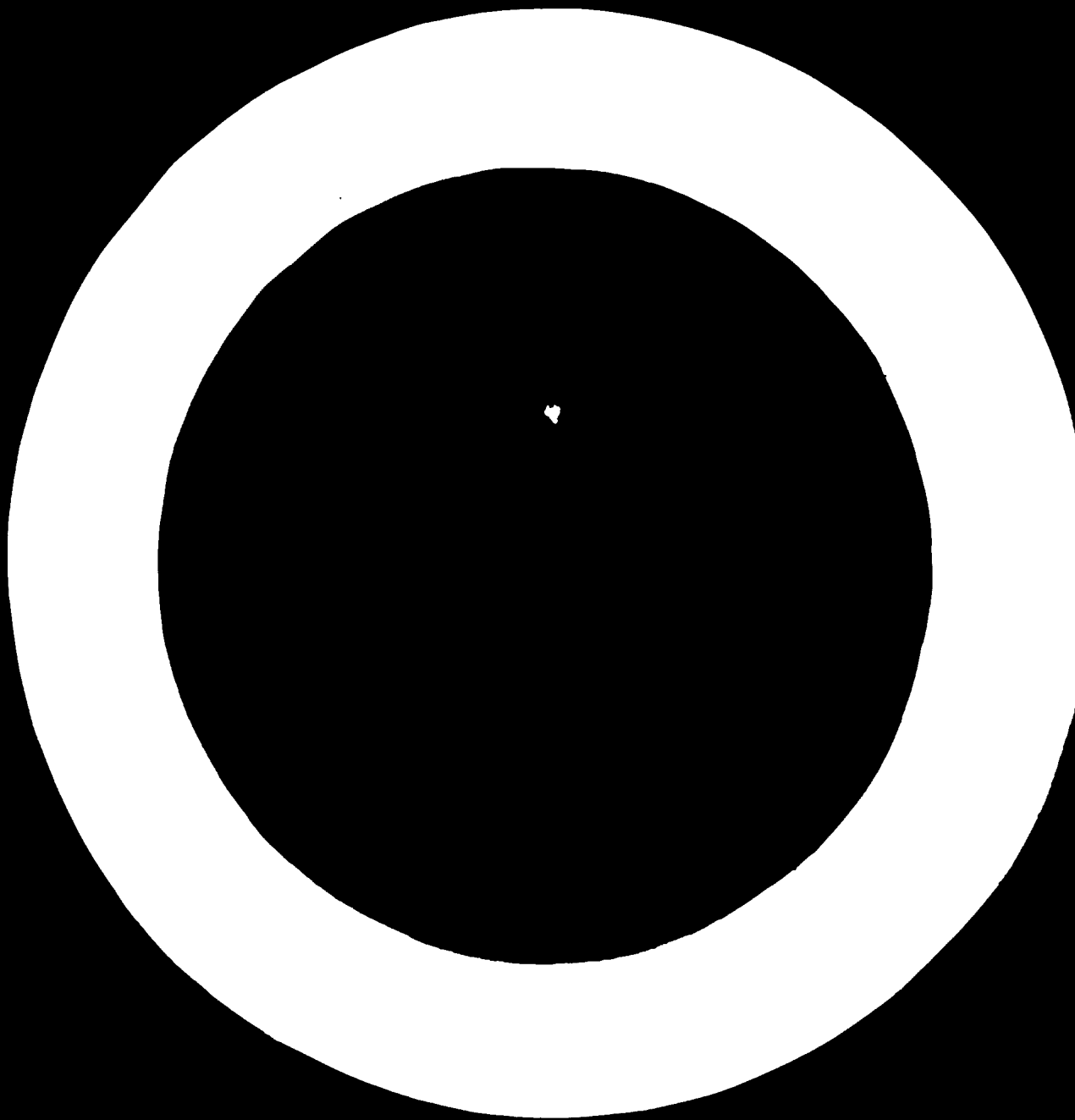
- Packaging material (_____)
- Parts, supplies and services for repair and maintenance
- Other materials and supplies for non-manufacturing activities (e.g. office supply)

Total value

A

III. C. ENERGY AND WATER: A

Running materials	Unit	Quantity consumed		Unit price c.i.f. (000)	Total value of purchase c.i.f. (000)	% im- ported	Import duties (000)
		Purchase	Internal supply				
1. Electricity	000 kWh						
2. Solid fuels:							
-	t						
-	t						
-	t						
3. Liquid fuels and lubricants:							
-	t						
-	t						
-	t						
4. Gas	000 m3						
5. Steam	000 m3						X
6. Water	000 m3						.



EXPLANATORY NOTES

To assess the establishment as a branch of a larger enterprise and is dependent on the central office for some of the cost and financial data, it may not have adequate branch accounts on all the items in this section. Rents, interests, royalties, corporate income, etc. would then be estimated only on an imputation basis. But even such estimates, if crude, are important for the purpose of this study, i.e. to grasp the value added generated by the productive activities of the establishment.

AA IV. A.: Ad 1.

Ad 2.: - Distinction between "operative" and "non-operative" workers follows in principle the classification to be given in section V. When the establishment (or firm) operates seasonally, show separately (in the parenthesis) the wages and salaries of seasonal workers. Wages should be shown inclusive of income tax but exclusive of social security contributions.

Annual salaries of non-operative workers (or employees), as noted from V.C. in the Manning Table, include salaries of management and specialized staff. These should also be inclusive of income tax but exclusive of social security contributions.

Ad 3.: - All the social security contributions, whether they are wholly or partly included in the nominal gross wages and salaries, should be isolated here.

Ad 4.: - Non-wage, non-salary payments to workers are payments for expenditures from which both operatives and non-operatives benefit, such as

- Working clothes and similar supplies to workers
- Enterprise's subsidies on housing
- Transportation
- Cafeteria
- Other welfare activities.

Ad 5.: - If there is any particular depreciation policy being followed (either to accelerate or to defer depreciation), please describe it in the footnote space at the bottom.

Ad 8.: - Sales tax normally included:

- tax that accrues when sales take place, and
- tax that accrues as production takes place.

In the event raw material taxes are charged as a part of production tax (or production tax is calculated on the basis of materials used or purchased), indicate this kind of tax accrual, if these values are not yet included in the purchase value, c.i.f. of the material (see III.A. and III.B.). It is particularly important that these taxes be adjusted to reflect the annual accrual over the year considered instead of the taxes actually paid during the year.

Ad 9.: - Other indirect business taxes include those that reflect neither current production nor profit nor income. Examples would be a tax chargeable on assets; an employment tax or a requisite contribution to the community.

Ad 10.: - Corporate income before tax. This study is not interested in obtaining the exact figure as actually reported in the firm's profit and loss statement. But this study needs the figure representing the profitability of the firm's or establishment's productive activities, properly adjusted by excluding from the estimates of annual productive revenue and cost

- capital gains on investment
- re-sale of goods
- inventory revaluation, etc.

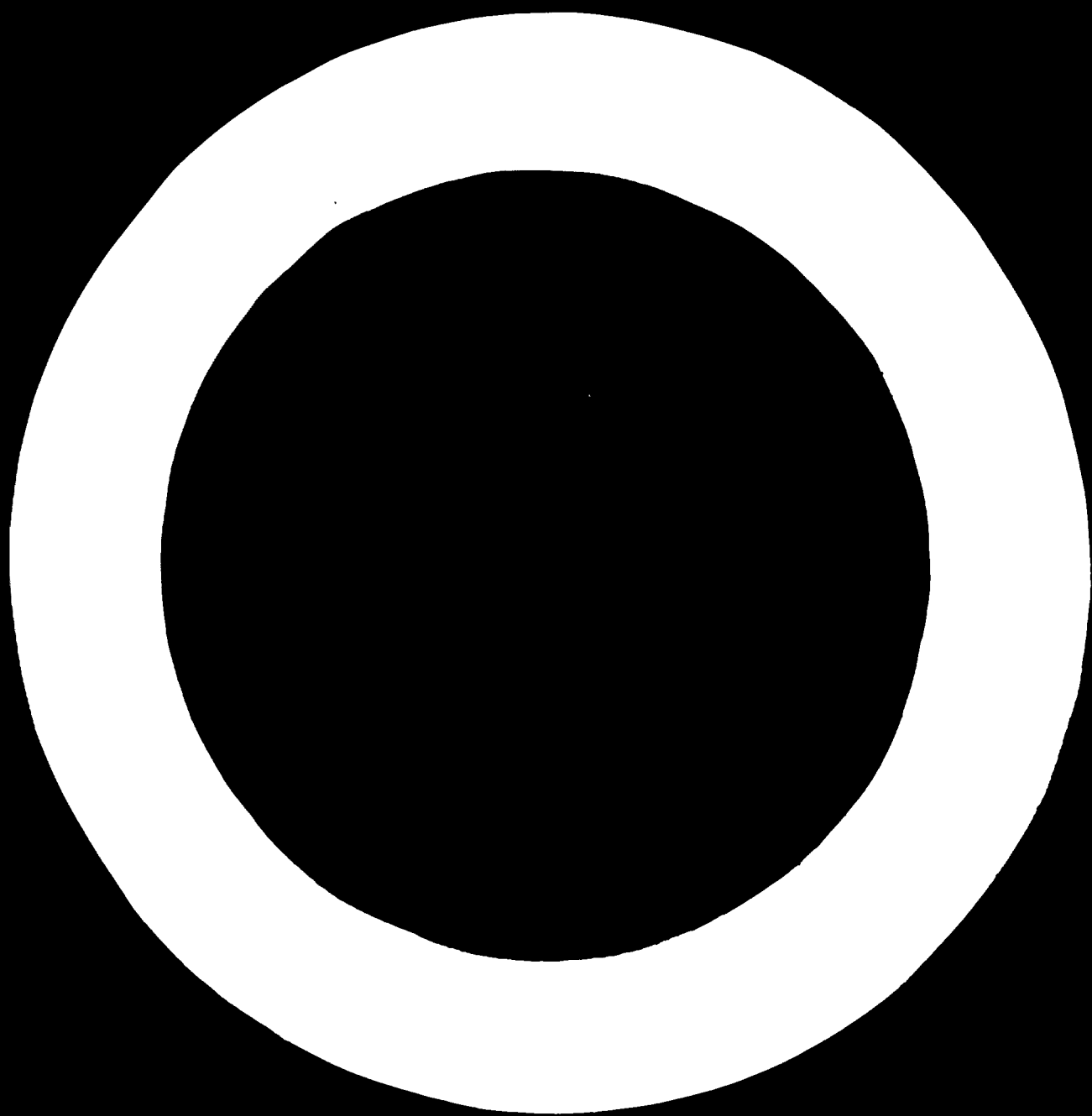
AA IV. B.: - Note that the formula for checking the data given in IV.A. assumes that the total annual revenue output does not include any sales tax nor production tax. The actual corporate income before tax (IV.A.10) might be based on the actual revenue-expenditures relationship rather than the actual output-cost accrual relationship. The latter is the relationship to be used in this Profiles compilation.

- The establishment's (or firm's) individual accounting methods might not conform in every respect with those followed in this Profiles compilation. Thus, the check for production and consumption data will help

- (1) to correct any insufficient or incorrect entries in Sections II, III and IV and/or
- (2) indicate any important factors that this Profile scheme fails to cover.

Ad V.A.1 - Major (primary) production departments are the principal organizational sub-units of the establishment. Often, but not always, the classification of major production departments coincides with the classification of major product lines. Within each major production department, there are a number of operative shops consisting of groups of machines that perform complementary production tasks (e.g., in a machine shop, lathes, drilling machines, milling machines, etc.) These operative shops may be referred to as "resource elements" in sectoral development programming, or as "cost centers" in standard-cost accounting.

- In filling out this part of the questionnaire, the existing organizational and accounting structure of the establishment should be followed in so far as possible. If the establishment has a standard-cost system, the listing of individual operative shops should follow the structure of cost centers. If accounting or other information exists only at the level of major production departments, an attempt should be made to estimate the breakdown by suitably defined operative shops. Even approximate breakdowns are valuable.



- Ad V. A.:** - Primary operative shops, units or departments are those engaging in manufacturing proper, such as preparation of raw material, fabrication, inspection and packaging. Use conventionally acceptable terms to describe individual shops. Distinction of shops is desired to be detailed enough to provide a sketch of the structure of production line or lines.
- If any workers on the regular payroll engage in off-site production, i.e. the putting-out system or homeworkers, specify the number of such workers separately.
- The heading supervisory staff and foremen (in V.A. and V.B.) includes the technical personnel (engineers or similar) who might be classifiable as "non-operative staff" (see VI.A.) in terms of their salary status, but who are attached to specific operative shops for most of the year. This Profile study is interested in assessing the skill requirements for each specific operative shop. Only those engineers who engage in managerial desk work and research and development may be classified in V.C.
 - In a sense, all workers in primary shops are machine operators in one or another way. However, in this context those persons who actually operate machines and equipment are considered as machine operator
 - Other operatives are those workers who are engaged primarily in manual operations, material handling or in some other manual processes, which require only small hand tools.
 - If a significant portion of the establishment's work is operated seasonally, please report the number of seasonally employed persons separately for each shop by indicating their number in parenthesis, that means it is included in the total. Indicate also the approximate duration of the season of each shop, if seasonally operated.

- Ad V. B.:** - Auxiliary operative units should be so distinguished. In a small factory, not many of such specialized units may exist, but efforts should be made to isolate particular persons who are specialized in those auxiliary operations from the rest of the workers classifiable under V.A., even if their actual status is not subject to such functional classifications.
- Repair and maintenance: It is especially important for the purpose of this Profile study to have the repair and maintenance crew properly identified. Even if no specialized unit is instituted, the staff and operatives who are mostly occupied in equipment repair activities should be so isolated and entered here. If the establishment relies on outside firms for repairs and maintenance of equipment, the annual cost of such services purchased should be included in Section III.B.2. When similar services are purchased regularly on a contract and commission work basis, they should be entered in III.D. (and preferably so noted in the available space).
 - Utility control includes such units as boiler room, generator section etc. if not already included in V.A.
 - Tooling shops: Tooling constitutes a crucial factor in the industries using metal-working equipment. The persons or unit specialized in tooling (including tool designing staff), if any, should be indicated here.
 - Other units in addition to those already listed should be specified here (e.g. material, production or inspection control clerk and other auxiliary workers not elsewhere classified).

- Ad V. C.:** - Production management includes executive and managerial staff, department heads, and general plant supervisors not classified under V.A. or B.
- An entry for research and development should be made only if there exists a separate unit for research and development. This category is reserved for a unit that undertakes research and development that is not immediately related to current production.
 - Sales unit includes, if any, those persons whose work is done in the field and away from the premises of the establishment but who are considered employees of the establishment. Ordinarily an entry should be made here only if an internal departmentalized sales unit exists.

Ad V. D.: - Operative workers in this context include those classified in V. A. and V. B.

Ad 1.: - Normal work hours include

- short resting periods
 - other occasional idle time
- but exclude
- lunch hours.

Ad 3.: - Annual (actual) average work-hours per worker can be affected by

- overtime
- seasonal labour
- part-time labour
- number of shifts.

# Departments or shops <i>100</i>	Number of employees and workers (annual average)				
	Supervisory staff and foremen	First shift		Second shift	Third shift
		Machine operators	Other operatives		
V. A. MAJOR PRIMARY PRODUCTION DEPARTMENTS <i>100</i>					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
-					
Total for primary operative staff:					

V.A.A. OPERATIVE SHOPS WITHIN EACH: See page # 26.

V. B. AUXILIARY OPERATIVE UNITS: <i>100</i>	Supervisory staff	Other workers and employees		
		First shift	Second shift	Third shift
- Repair and maintenance				
- Utilities control				
- Product and material storage				
- Tooling shops				
- Off-site transport				
- Guards, cleaners and similar labourers				
- Other units ()				
Total for auxiliary operative staff: <i>100</i>				

V. C. AUXILIARY NON-OPERATIVE UNITS: <i>100</i>	Supervisory staff	Other workers and employees		
		First shift	Second shift	Third shift
- Production management			X	X
- Research and development			X	X
- Sales unit			X	X
- Accounting			X	X
- General administration			X	X
- Other departments ()			X	X
Total for auxiliary non-operative staff: <i>100</i>			X	X

V. D. WORKING TIME: # Priority *100* ; skip for priority *100* and *100*.

	First shift	Second shift	Third shift	
1. Normal work-hours per day per operative worker				Hours
2. Normal work-days per year per operative worker				Days
3. Annual () actual () average work-hours per operative worker				Hours
4. In case the establishment was functioning less than 12 months within the year of reference, please indicate the months during which it was not in operation:				

Ad V.A.A.: - Operative shops are defined in Explanatory Notes to Sec. V.A. on page # 23. In the absence of an existing standard-cost accounting system or shop-level organizational breakdown of the establishment, refer to the process listing in Part II, Sec. 8.11., "Operative Shop Checklist," page # 55-62, of this questionnaire, when deciding on a classification of operative shops. In addition to the type of process (e.g. die forging), an operative shop should be characterized by:

- (a) The maximum weight or dimension of workpieces handled.
- (b) Seriality: the typical length of the production run of identical workpieces produced, e.g., unit production, low-series, medium series, large series, or mass production. Specify in each case the range of units per production run.
- (c) The precision of the resulting output.

(B)

V.AA. OPERATIVE SHOPS WITHIN EACH MAJOR PRIMARY PRODUCTION DEPARTMENT.

Fill out a separate sheet for each major production department as listed in Sec. V.A., page # 25.

Major production department No. _____ Designation _____

1. Operative shops	Number of employees and workers (annual average)				
	Supervisory staff and foremen	First shift		Second shift	Third shift
		Machine operators	Other operatives		
Total for	operative staff:				

2. Working schedule for this major production department:

	First shift	Second shift	Third shift	
1. Normal work-hours per day per operative worker				hours
2. Normal work-days per year per operative worker				days
3. Annual () actual () average work-hours per operative worker				hours

4. In case any operative shop deviates from this working schedule as given for the entire department, indicate the schedules applicable to such operative shops:

(Use additional sheets for each major production department.)

EXPLANATORY NOTES

Ad VI.: - The structure of labour market and effective occupational categories vary among different countries. The categories referred to here are believed to be the least sophisticated and it is requested to comply with this classification as much as possible.

- Monthly gross wages and salaries refer to one-twelfth of the annual gross income inclusive of

- income tax
- social security contributions
- family allowances
- regular piece-work premiums
- non-monthly 'bonus' type incomes,

but exclusive of payments 'in kind' such as

- working clothes
- housing subsidies, etc.

- In this table, all the employees and workers are to be cross-classified according to their functional categories and their monthly income brackets. The six income brackets may be standardized in each country and the expert team engaging in the Profile studies shall provide a pre-fixed grouping. Generally, it is suggested that the six brackets be established to reflect the generally applicable standards for

- (1) unskilled and unexperienced
- (2) semi-skilled or experienced in unsophisticated routines
- (3) skilled and experienced in relatively sophisticated routines
- (4) highly skilled and on jobs requiring a degree of initiative and supervisory responsibility
- (5) professionally qualified staff for technical and managerial control
- (6) executive staff.

Ad VI. A.,

B, and C.: - The distinction between non-operative and operative workers in this section is primarily connected with the status of personnel which affects more or less unambiguously the scales and patterns of remuneration. It may thus not necessarily be identical with the functional distinction given in Section V (Manning Table), although possible gaps should be limited to certain types of personnel (e.g. engineers and technicians).

- Whenever there exist any distinct skill or functional categories not readily indicated in the table but representing especially important types of personnel in the establishment (or firm), show them separately under other specific categories.

Functional categories	Monthly gross income groups 1)						# Total 2) (A)
	(B)	(B)	(B)	(B)	(B)	(B)	
VI. A. LOCAL NON-OPERATIVE STAFF:							
1. Managers (general and assistant)							
2. Engineers							
3. Technicians (or assistant engineers)							
4. Accountants							
5. Sales officers							
6. Clerks and typists							
7. Other specific categories (if any)							
-							
-							
-							
VI. B. LOCAL OPERATIVE WORKERS:							
1. Factory supervisor							
2. Foremen							
3. Key-machine operators							
4. Electricians, mechanics and other industrial craftsmen in auxiliary operative units							
5. Truck drivers							
6. Other full-time operatives							
7. Unskilled operatives (guards, cleaners etc.)							
8. Part-time operatives							
9. Other specific categories (if any)							
-							
-							
-							
V. C. FOREIGN EMPLOYEES:							
1. Managerial staff							
2. Engineers, trainers and other technical staff							
3. Other non-operative workers							
4. Foremen and other skilled operative workers							
5. Unskilled workers							
6. Other specific categories (if any)							
-							
-							
-							
Total							

Ad VII.: - This section relates to the existing physical fixed capital assets in the establishment (or firm) whether purchased new or second hand or produced by the establishment's own facilities.

- In the case of a branch establishment, which is dependent on the central office for the book-keeping of the data on assets, attempts should be made to produce the best estimator possible on the basis of the branch's own inventory records as well as the records as may be kept at the firm's central office.

- Both total original purchase and replacement value of each specific type of fixed capital assets should be given.

- The original purchase value refers to the value effective at the time of installation and not the depreciated value.

- The replacement value is defined here so as to provide an idea as to how much it would cost if the existing asset were replaced by new functional equivalents. The age of the asset and the speed at which the wholesale price of similar assets has been rising in the past will thus be the major factors responsible for the gap between original purchase and replacement value. In some cases the fire insurance values may provide a basis for arriving at a sensible estimate for the replacement value. Even rough estimates are acceptable for our purposes.

If the physical asset is so old that its functional equivalent can no longer be found in today's market write simply "obsolete" under replacement value.

If a given type of equipment involves two or more units of different age, indicate the average age.

Ad VII. B.: - The value of buildings should be accounted together with construction work involved, but exclude insurances possible

- value of land (VII.A)

- value of operative auxiliary facilities (VII.D).

Ad VII. C.: - For the purpose of this study each major process equipment should be itemized with a view to indicating the core processing equipment that is crucial in determining the capacity of each processing shop, and the quality of the products processed. For this purpose, it is advisable to select and list major items in order of the primary operative shops as described in V.A. Such listing will be facilitated by distinguishing specialized processing equipment (to be listed under VII.C.1) from common type equipment (to be listed under VII.C.2).

- Note that the capitalized value of process equipment would include

- duties and taxes paid at the time of its purchase

- transport and installation service costs. It is desirable to separate, if only by approximation, the transport and installation costs from the purchase price of the equipment and indicate it in VII.C.4.

Ad 1.: - Specialized machines and equipment are those which are designed specifically for the use in a particular industry and are typical for the manufacturing of the group of products considered.

UNITED NATIONS  NATIONS UNIES
 UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

VII. FIXED CAPITAL ASSETS

	Number	Total original purchase value in 000	Total replacement value in 000	Average age
VII. A. LAND: (B)				
1. Land (Total acreage: <input type="text"/> m2)				X
2. Land improvements				X
VII. B. BUILDINGS: (B)				
1. Primary industrial buildings (Total floor space: <input type="text"/> m2)				
2. Auxiliary buildings (power plant, laboratory, mechanical shops and garages etc.)				
3. Warehouses				
4. Office and administration buildings				
5. Housing				
Total value of land and buildings: (A)				X
VII. C. PROCESS EQUIPMENT:				
1. Specialized machines and equipment:				
# Omit listing for priority (A) and report subtotal only.				
# Replace by VII.CC. for priority (B) and (C) .				
Subtotal (A)				
				X

EXPLANATORY NOTES

Ad 2.: - Common type of machines and equipment, no matter if custom made, the type which can be widely used in many industries with limited modifications, such as

- transporting solids (cranes, conveyors, hoists, etc.)
- power-drivers purchased separately
- industrial pumps, compressors, blowers, etc. of general types
- dressed lumber, tanks and other containers
- weighing, cleaning, packaging equipment of general types
- machines and equipment in auxiliary facilities (e.g. power-driven hand tools, metal-working, welding, cleaning machines for repair and maintenance shops)

- It is preferable to group major types of common equipment for each processing shop.

Ad 3.: - Hand tools and small apparatuses refer here only to those which are considered as capitalized assets; miscellaneous hand tools and machine accessories treated similarly to consumable supplies should be excluded from here (see III.B.2).

Ad 4.: - Cost of installation relates to the part of the capitalized cost of equipment that occurred at the installation phase of machinery and equipment. It consists of the cost of labour and technical services as well as transportation and installation materials. These costs may not be readily available in older establishments. However, please attempt to provide an estimate of these costs wherever possible, and especially when such installation cost is believed to be an important part of the equipment value.

Ad VII. E.: - Other fixed capital assets include all remaining items which are nowhere else listed (intangible capital assets: firm's organizational costs, capitalized patents, etc.)

Ad VII. F.: - The estimate of the total capacity power involved in all primary process equipment is reported here.

Ad 1.: - For electric motors and furnaces, estimates in kilowatt are preferred.

1 kW = 1,36 HP = 102 kgm/s
1 HP = 0,735 kW = 75 kgm/s

UNITED NATIONS  **NATIONS UNIES**
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

# VII.C. (Continued)	Number	Total original purchase value in 000	Total replacement value in 000	Average age
Carry over				X
2. Common type of machines and equipment:				
# Omit listing for priority (A) and report subtotal only.				
# Replace by VII.CC. for priority (B) and (C) .				
3. Hand tools and small apparatuses:	X			Z
4. Cost of installation (if separable):	X			X
Total value of process equipment:				X
# VII.CC. FLOORSPACE AND PROCESS EQUIPMENT ASSIGNMENT: See page # 33.				(B)
II. D. AUXILIARY FACILITIES: (A)				
1. Internal power equipment (excluding building) (Water, steam and/or electricity)				
2. Laboratory facilities (excluding building)				
3. Means of transportation				
Trucks and similar vehicles (Total load: <input type="text"/> t)				
Other vehicles (Total load: <input type="text"/> t)				
4. Office equipment (e.g. office furniture)				
II. E. OTHER FIXED CAPITAL ASSETS (A)			X	X
Total VII. A. to E. (A)				
III. F. TOTAL CAPACITY POWER OF INSTALLED MOTORS: (A)				
1. Primary process equipment				
- Electric motors			<input type="text"/> kW	
- Other prime movers for process equipment			<input type="text"/> HP	
- Electric furnaces			<input type="text"/> kW	

EXPLANATORY NOTES

Ad VII.CC.: - See explanatory notes to Sec. VII.C., page # 29, 31.

VII.CC. FLOORSFACE AND PROCESS EQUIPMENT ASSIGNMENT:

(B)

Fill out a separate sheet for each primary operative shop, as listed in Sec. V.AA., each auxiliary operative unit, as listed in Sec. V.B., and each auxiliary non-operative unit, as listed in Sec. V.C.

Shop or unit No. _____ Designation: _____

Category of asset	Number	Total orig. purch. val. in 000	Totl. repl. value in 000	HP	Avg. age
11. Floorspace(m ²):					
Manufacturing & assembly					
Packing, storage & shipment of finished goods					
Warehousing of materials					
1. Specialized machines and equipment:					
Subtotal					
2. Common type of machines and equipment:					
Subtotal					
3. Hand tools and small apparatuses:	X			X	
4. Cost of installation (if separable):	X			X	
Total value 1. - 4.				X	

(Use additional sheets for each shop or unit.)

EXPLANATORY NOTES

AA VIII. A.

and B.:

- The annual average of inventories and liquid assets may be estimated from the records relating two or more points of time during the year (monthly, quarterly or half-yearly). If the records are available only for a particular date in the year considered, strike out "average" and indicate the date.

AA VIII. B.:

- If the object of this study is a branch establishment of a company, the branch's own liquid assets may not clearly be distinguishable from those of the parent company. Items like accounts receivable, prepaid expenses and cash on hand and in bank as relevant for the branch's operation should be indicated insofar as possible. The accounts receivable in the form of the outstanding claims between the establishment and its parent company or other branches of the same company should be estimated and included here. If a reasonable estimate of liquid assets is not available, such a branch establishment is urged to indicate at least the view of its management concerning the desired working capital (in VIII.C).

AA VIII. C.:

- The desired working capital should be filled out in the case of an establishment as well, assuming as though it were an independent firm. Total working capital requirements may or may not deviate much from the total value of actual inventories and liquid assets. What is asked here is a diagnostic review of what ought to be considered as the normal working capital requirements for the current scale of production under the normally expected conditions of market in the country or region considered.

- The equivalent number of months refers to the magnitude of the desired working capital relative to the normal monthly allowances for respective items.

EXPLANATORY NOTES

Ad IX. A.: - If no specific future plan is envisaged, but if the management feels that there are some serious bottlenecks calling for investment in not too distant future, such a view should be stated in IX.D.2.

Ad 3.: - Balanced additions involve approximately proportional increases in all the required technical facilities.

- Unbalanced additions break selected bottlenecks and thus make possible an increase in output through an improved utilization of complementary spare capacities. See also Sec. IX.D.2., page # 40.

Ad 4.: - One man-year is the equivalent of one person working full time for a 12-month period (in accordance with the normal annual working hours as mentioned in V.D.1 and 2).

Ad IX. B.: Ad 1.: - Criteria for rating external conditions:

- (a) Excellent - Readily available and reliable and not likely to become a bottleneck in the foreseeable future.
- (b) Fair - Somehow sufficient for the present scale and type of operation but some minor expenditures, as chargeable to the cost accounts of the establishment, have been made or should be made to cover shortcomings in order to achieve the desired level of production activity.
- (c) Poor - Inadequate or unreliable; the present scale of operation is already constrained by this factor; or the establishment has been relying to a significant extent upon its own capital assets or expenditures to cover shortcomings to make the present scale of operation possible.
- (d) Insignificant - Irrelevant for the operation of the establishment (or firm).

X. OTHER INFORMATION

IX. AA. INVESTMENT HISTORY: see page # 3A

X. A. FUTURE PLAN:

Are major capital investments planned in the next five years? yes no

1. If yes; proposed investment period:

2. Approximate amount of investment: (000)

3. Type of investment: (Check the relevant cell) # (or cells)

	Product mix	Process machinery and equipment	Other primary production facilities	Auxiliary production facilities	Administrative and welfare facilities
Replacement investment for		()	()	()	()
balanced		()	()	()	()
New additions to	() ()	() ()	() ()	() ()	() ()
New unbalanced additions to	() ()	() ()	() ()	() ()	() ()
Technological improvement of		()	()	()	()

4. Are these investments likely to be accompanied by an increase or decrease in man-years? yes no

a. If yes; how many man-years?

	First shift	Second shift	Third shift	
Primary operatives				man-years
Auxiliary operatives				man-years
Management and administration				man-years

X. B. EXTERNAL CONDITIONS:

1. Use the following key to describe external conditions:

- (a) excellent
- (b) fair
- (c) poor
- (d) insignificant

Transport

External long distance (.)
Internal long distance ()
Local and city ()

Utilities

Electricity ()
Water ()
Gas ()

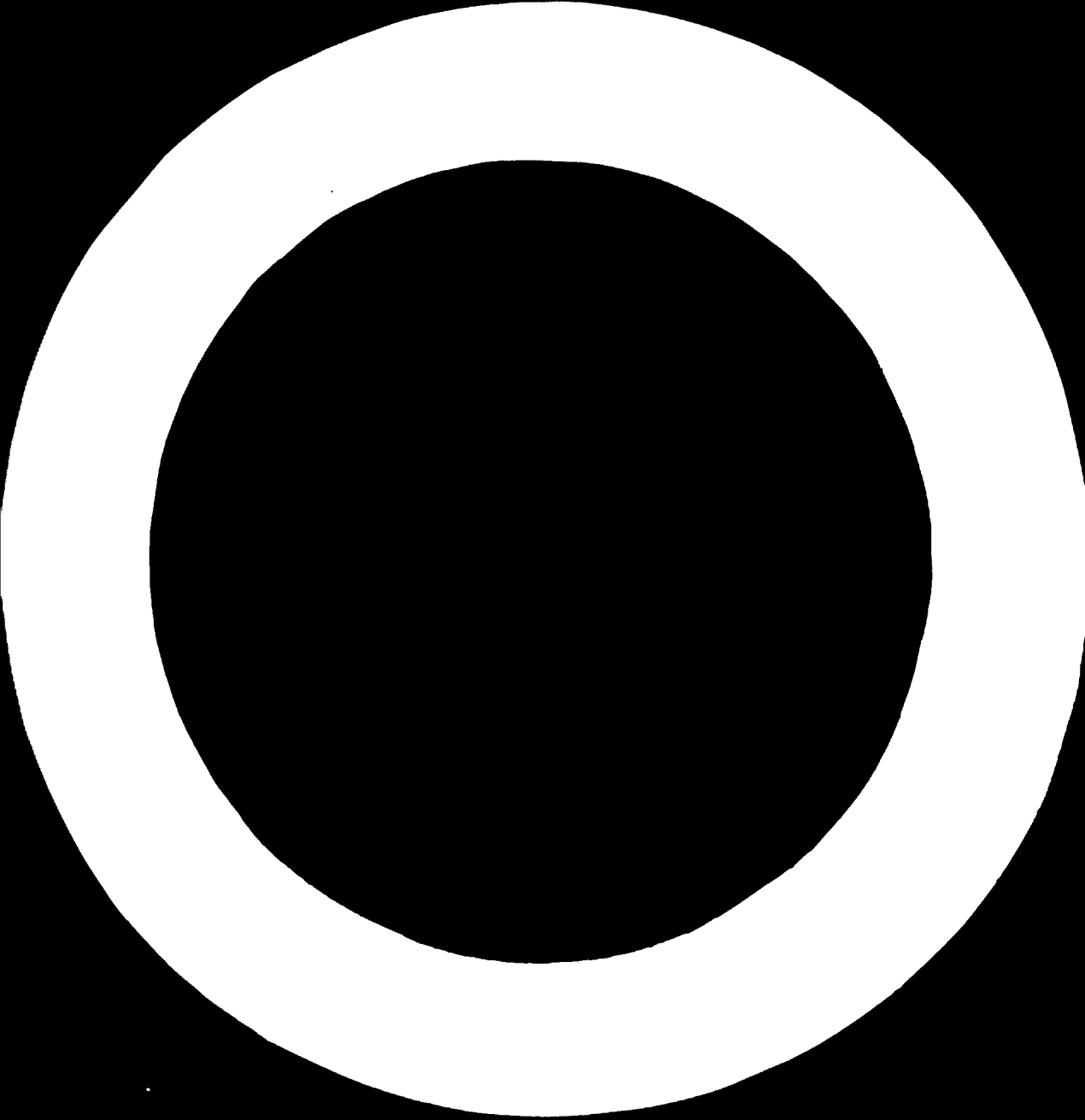
Community

Residents ()
Health and recreation ()
Education ()

2. If any of the above is rated "poor" describe the extent to which it adds to the enterprise's current operating costs: _____

X. C. GOVERNMENTAL POLICIES:

1. Specific governmental policy measures, federal or local, particularly affecting the profitability of the enterprise:



(B)

IX.AA. INVESTMENT HISTORY:

Fill out a separate sheet for each investment period specified in answering the questions in Sec. I.B.4., page # 11.

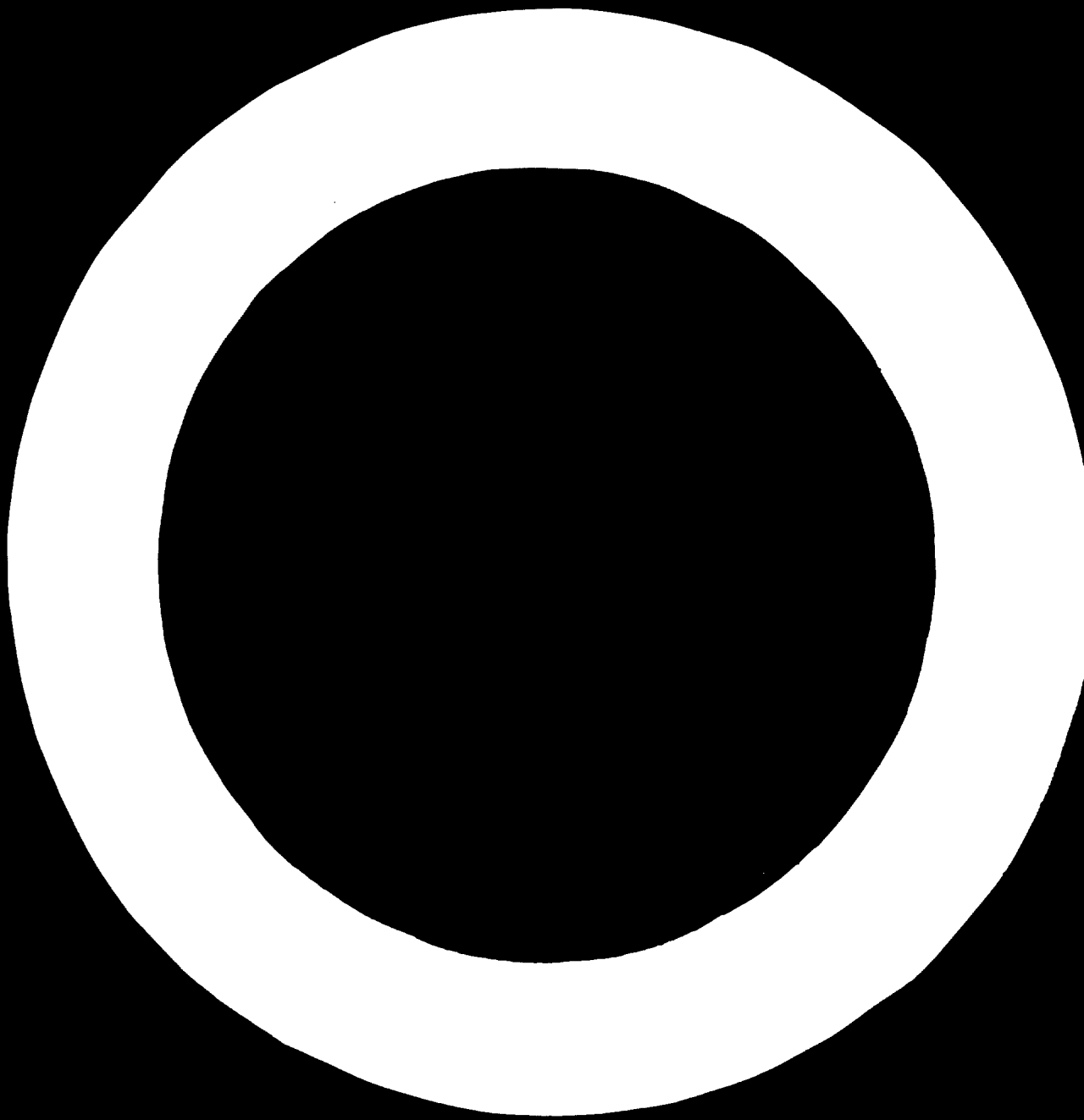
Investment period No. _____ Years: _____.

1. Type of investment: (check the relevant cell or cells)

	Product mix	Process machinery and equipment	Other primary production facilities	Auxiliary production facilities	Administrative and welfare facilities
Replacement investment for unbalanced additions to	()	()	()	()	()
New unbalanced additions to technological improvement of	() ()	() ()	() ()	() ()	() ()

2. Describe and comment on the nature of unbalanced additions:

(Use a separate sheet for each additional period. Be sure to fill out a sheet also for the current period.)



IX. D. PERFORMANCE IN THE PAST YEARS:

(A)

1. Recent production history:

	1963	1964	1965	1966	1967	1968
Total output in 000						
Total number of persons						
Total exports in 000						

2. Bottlenecks: Priority . Skip for priority or

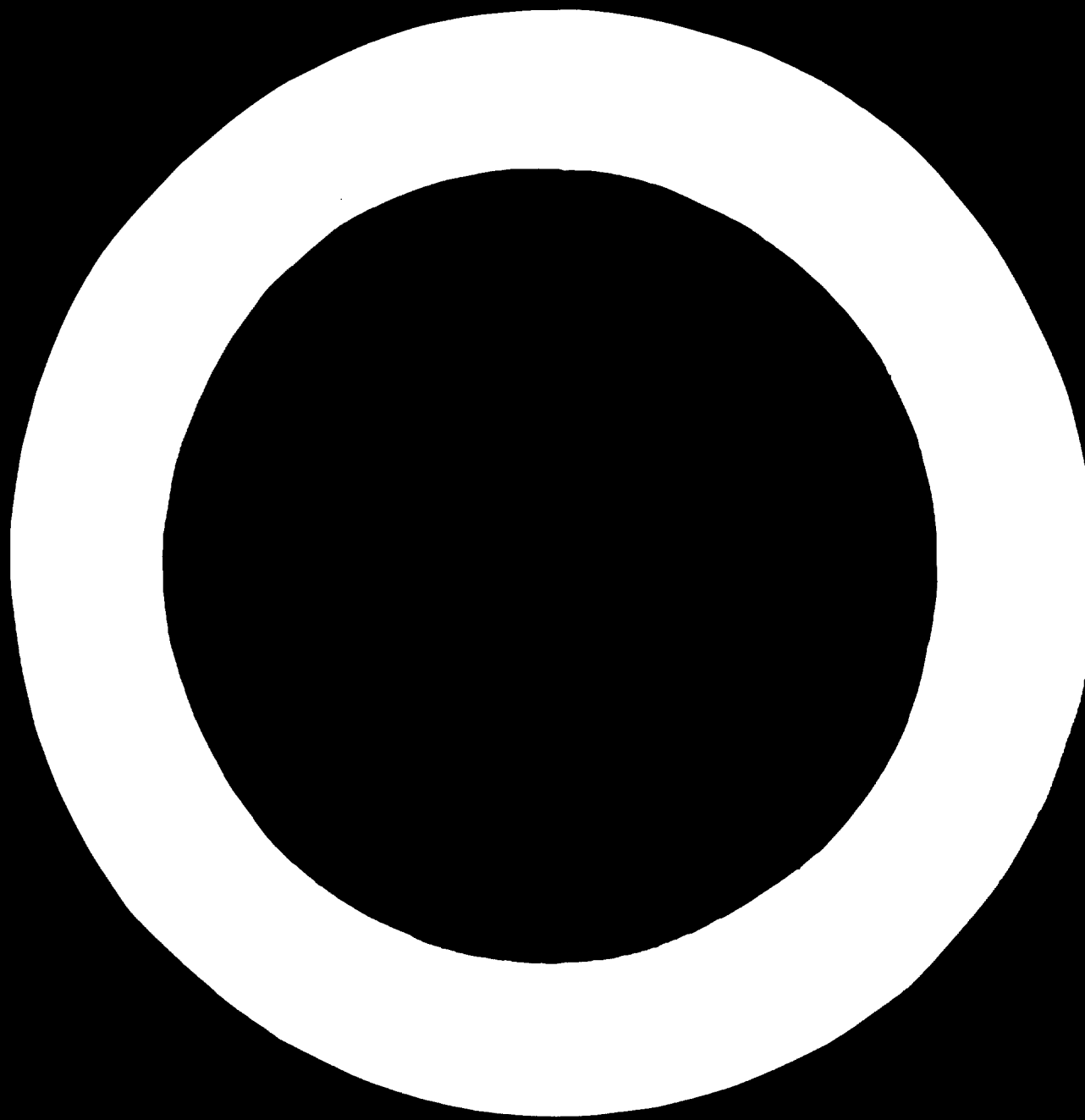
- Describe the major bottlenecks in the past years: _____

- How solved? _____

- Current problems: _____

3. Research and development history:

Item	1963	1964	1965	1966	1967	1968
Totl. expend. on R&D, in 000						
Totl. employed in R&D						
of which prof. & technical						
Totl. expend. on patents, royalties, and tech. coop. agreements						
of which foreign exchg. expend.						



IX.E. PERFORMANCE IN THE PAST YEARS BY MAJOR PRODUCT LINES:



Fill out a separate sheet for each major product line listed in Sec. II.A., page # 14.

Product line No. _____ Designation: _____

1. Recent production history:

	1963	1964	1965	1966	1967	1968
Total output in 000						•
Total number of persons						•
Total exports in 000						•

2. Bottlenecks:

- Describe the major bottlenecks in the past years: _____

- How solved? _____

- Current problems: _____

3. Research and development history:

Item	1963	1964	1965	1966	1967	1968
Totl. expend. on R&D, in 000						
Totl. employed in R&D						
of which prof.& technical						
Totl. expend. on patents, royalties, and tech.coop.agreements						
of which foreign exchg.expend.						

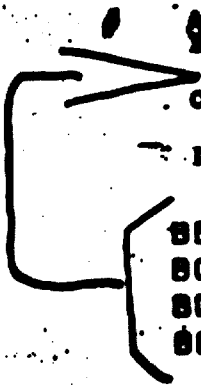
(Use separate sheets for each additional major product line.)

PART II

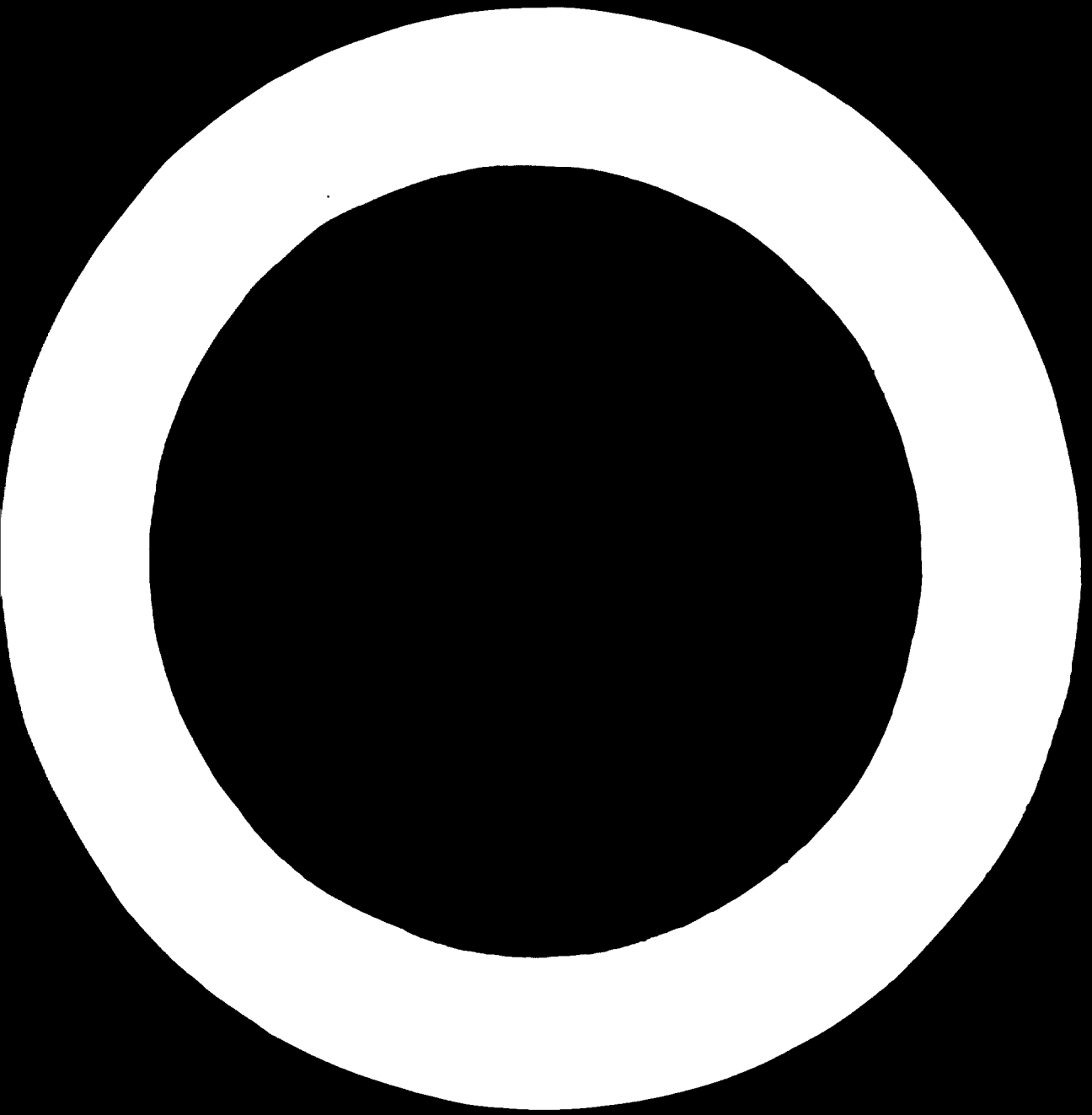
EVALUATION

(EXPERT'S REPORT)

	<u>SQE</u> <u>Pages</u>	
A. <u>General Evaluation</u>	28	42
AA. <u>Product Detail</u>	31	51
B. <u>Technological Characteristics of Production</u>	34	53
C. <u>Market Conditions</u>	49	97
D. <u>Checkpoints for the Data given in Part I</u>	41	100
BB. <u>Capacity Output and Utilization</u>	--	66
BC. <u>Representative Products</u>	--	70
BD. <u>Production Alternatives: New Technologies</u>	--	85
BE. <u>Production Alternatives: New Products</u>	--	87



- This Expert's Report is designed to facilitate
 - (i) the checking of the consistency and adequacy of the data compiled in Part I; and
 - (ii) to obtain additional information that is not asked for in Part I and can normally be acquired through the expert's discussion with the managerial and technical personnel of the establishment (or firm) considered.
- It is advisable that the expert team completing this Part II will discuss it point by point with the production manager, sales supervisor and technical personnel, in order to get the necessary insight into the actual operational features of the establishment (or firm).
- In the process of checking the consistency and adequacy of the data supplied in Part I, the expert will find it necessary to produce his own estimates or guesses wherever the personnel of the establishment is hesitant to provide sensible answers. If the estimates or guesses are extremely crude approximations, attach (*) in front of such figures or statements.
- The expert's own evaluation of the structural and functional features of the establishment (or firm) considered will be facilitated also by going through various monographs published by the firm, such as advertisements on merchandises, price lists, public relational materials, annual financial reports, etc.



EXPLANATORY NOTES

AA A. - This section is a supplement to section I.A. of the Establishment Scheme (Part I).

AA A. 1. - Centralized and decentralized refer particularly to the extent to which a given branch establishment keeps own business accounting in a manner comparable to an independent firm. A branch establishment that lacks autonomy with respect to managerial routines and is entirely dependent on the parent company's central office for the recording and analysis of its business transactions is not by itself suitable to be the object of this Profile study. The data on such an establishment (which will normally be complete only for the physical aspects of productive activities) should be supplemented by Part III. Enterprise Summary Data (Enterprise Scheme).

AA A. 2. AA (a): - The description of technical advantages or disadvantages may be given only to the extent that they are directly relevant for the reporting unit considered.

UNITED NATIONS  NATIONS UNIES
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

COUNTRY:

KIND OF ACTIVITY:

YEAR OF REFERENCE: from 19 to 19

EXHIBIT NUMBER:

NUMBER OF ESTABLISHMENTS:

A. GENERAL EVALUATION

(A)

A. 1. OBJECT OF STUDY:

This study relates to:

- () A one-establishment enterprise, founded in (enterprise - one establishment)
- () A branch of a centralized multi-establishment enterprise classifiable in the same industry group, founded in (enterprise - establishment + central office)
- () A branch of a centralized multi-establishment enterprise classifiable in more than one industry group, founded in (enterprise - establishment + central office)
- () A branch-establishment of a fairly decentralized multi-establishment enterprise, founded in (parent company - this branch-establishment + other establishments + central office)

Year

If 2nd, 3rd or 4th reporting unit is applicable, please answer also A.2.b.

A. 2. RELATIONSHIPS WITH OTHER FIRMS OR ESTABLISHMENTS:

(a) Explain technical advantages or disadvantages connected with the participation of foreign capital:

- Skilled personnel: _____
- Equipment and machinery: _____
- Patterns and know-how: _____
- Supply of production materials: _____
- Market of products: _____

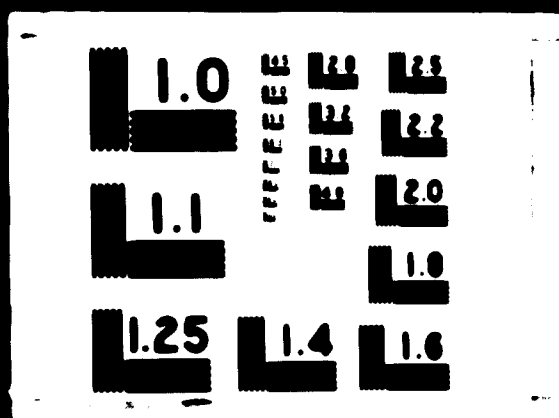


3 . 12 . 73

2 OF 3

D O

0 9 2 2



EXPLANATORY NOTES

A4 (b): - The relation of the reporting unit to other sister branches of the same parent company can be rated as follows:

- A** - very advantageous, i.e. the functional interdependence between the reporting establishment and other sister establishments provides significant advantages, without which the operation of this establishment would be practically jeopardized.
- B** - helpful but not crucial, i.e. there exists some degree of interdependence between this and other establishments but it is not so crucial to the survival of this establishment. Even if such a sister establishment were not existent, other competitive enterprises would offer more or less comparable transaction terms.
- C** - without special advantage, i.e. except for a kind of financial and managerial ties normally existing between sister establishments of the same company, the relation brings no special advantages.
- D** - disadvantageous, i.e. the functional solidarity with the particular sister establishment stems from particular historical circumstances rather than from the enterprise's policy for operational efficiency and is actually resulting in more disadvantages than advantages.

A4 A. 3.: - This data should be extracted from the latest National Industrial Census in the country considered. This reference data is needed in order to evaluate the basic performance of this establishment in relation to the relevant national average data. In the boxes enter the year of reference of the census, the code number (both national standard and international standard) of the industrial branch under which this establishment is classifiable. 3-digits are preferred for industrial classification code.

A4 (a)

and (b): - The criteria of classification, ranges of size classes and other available data categories will vary from country to country. Row headings (size classes) will be indicated as available from the census. For the column headings, if the data for any of the particular categories shown in the table is not available, substitute any other category for which tabulated census data is available, and so indicate.

For example,

- annual shipments, instead of gross production value
- capital stock, instead of fixed physical capital assets
- net or gross factor income (i.e. value added exclusive of indirect taxes), instead of net or gross value added (inclusive of indirect taxes)

- Distinction between gross and net for value added relates to depreciation allowances.
- Number of statistical units refers to the number of either establishments or enterprises as referred to by the national census.

UNITED NATIONS  NATIONS UNIES
 UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

(b) If A.1. 2nd, 3rd or 4th reporting unit is applicable, please indicate the relation of the reporting establishment to the other sister establishments:

(A)

- A = very advantageous
- B = helpful but not crucial
- C = without special advantage
- D = disadvantageous

Establishment number	Kind of activity (major products)	Number of persons employed	Relation of the reporting establishment to sister establishment (A, B, C or D)	
			Supply of your raw material	Outlet of your products
1			()	()
2			()	()
3			()	()
4			()	()
5			()	()
6			()	()
00			()	()

A. 3. DATA OF NATIONAL INDUSTRY CENSUS:

(A)

Year of Census:

196

National Industrial Classification:

ISIC-codes:

Characteristics of () establishments
 () enterprises by size class:

(a) Size classes by number of employed persons:

Size classes ^{1/}	Number of statistical units	Wages and salaries (000)	Gross value added (000)	Net value added (000)	Gross production value (000)	Fixed physical capital assets (000)
up to						
-						
-						
-						
-						
-						
over						

EXPLANATORY NOTES

Ad AA.1.

14mm

Ad A. 4.: - Please give for the major products a brief description of any special characteristics with regard to

- commercial brand name
- patent involved
- grade or quality (relative to competitive products on the market)
- extent of serial production
- exportability
- terms of delivery (normal lag between orders and deliveries), etc.

OUT

~~When some products had to be grouped together for the tabulation in II.A, describe the major components of that product group and indicate the unit prices of particularly important major components~~

- When numbers, pieces, boxes, etc. are used, please indicate the standard volume in physical terms involved in each of such units.

Ad A. 5.: - For description of major production materials of crucial importance for the production line in the establishment, give a brief description of their special features with regard to

- quality or standardisation
- sources of supply
- terms of availability
- tax burdens
- import restrictions, etc.

- Make sure that the crucially important materials are all satisfactorily represented by the tabulated data in III.A. If not, write here whatever additional specifications may be considered as useful from the professional standpoint.

Ad A. 6.: - The expert team's view regarding the over-all characteristics of the establishment (or firm), which are not considered as being well reflected in any of the sections of the study, should be summarized. In particular,

- position relative to competing firms in the country
- position relative to complementary industries in the country
- possibilities for further process integration, vertical or horizontal; possibility for being merged with any other firm or establishment; possibilities for further specialisation or branching away of any department
- desiderata in terms of economies of scale from the engineering standpoint
- desiderata in terms of financial structure
- any particular shortcomings with respect to managerial capacity and policies, etc.

A. 4. DESCRIPTION OF MAJOR PRODUCTS/ LINES:

(A)

Goes to page # 51.

A. 5. DESCRIPTION OF MAJOR PRODUCTION MATERIALS:

(A)

A. 6. SUMMARY OF REPORTING UNIT:

(A)

EXPLANATORY NOTES

- Ad AA.2.1 - Direct labor cost. Give per unit of output, including only the labor of direct production workers.
- Domestically purchased materials cost. Give per unit of output, including domestic raw materials, as well as domestically purchased components and subassemblies. Report actual price paid including taxes, commissions, fees, etc.
 - Imported materials cost. Give per unit of output, including imported raw materials, as well as imported components and subassemblies.
 - C.i.f. value: report import price at port of entry including cost of acquisition, insurance, and freight.
 - actual value: add to c.i.f. cost the payments for customs duties, customs clearance charges, and other necessary institutional costs paid out in domestic currency, plus domestic freight and related charges from port of entry.
 - Total materials cost. Sum of domestic and imported materials costs.
 - Indirect factory cost. Includes all indirect production charges incurred at factory level, but excludes the general overhead of the enterprise. Include:
 - Indirect factory labor;
 - Plant-level supervisory labor;
 - Indirect materials, supplies, and services;
 - Capital and maintenance charges on buildings and equipment allocated to product;
 - Factory-level insurance charges;
 - Tooling costs;
 - Quality control and technical laboratory costs;
 - Reworking of sub-standard output returned to factory;
 - Routine product design and engineering;
 - Transport within plant.
- Do not include:
- Clerical costs;
 - Production scheduling and cost accounting expenses;
 - Cafeteria and employee service costs;
 - Sales costs;
 - Transport outside of plant;
 - Legal, public relations, and other related fees;
 - Taxes (except as noted under "Materials.")
 - Research and development expenditures.
 - Total factory cost. Sum of direct labor, materials, and indirect factory cost.
 - Unit price ex factory (excluding sales tax). Should be identical to the datum given in Sec. II.AA. See explanatory notes to Sec. II.A., page # 13.

EXPLANATORY NOTES

AM B.1 - The section technological characterization of production is a supplement to Part I especially to the structural and functional features of major production processes of the establishment (or firm).

AM B.1.a - State specific formalized programmes currently in operation for labour training, also describe the methods and duration of in-plant training given to newly recruited workers for the advancement of their skills. An estimate of the annual expenses in terms of

- in-plant personnel costs
- costs of utilization of any outside training facilities

will be greatly appreciated.

AM B.2. AM (a) - Describe distinctive characteristics of the production process and jobs involved in primary operative shop as listed in ~~VI. B.~~ B.12., in so far as

not covered previously. Indicate
the core process involved in each shop (indicate which of the alternative technologies applicable to a similar process in modern practice is actually in use in the establishment e.g. dry or wet process)

DUT

- ~~kind of activity involved (e.g. coating, welding, polishing, mending, assembling, etc.)~~
- ~~rated capacity of the shop by hour or by day~~
- ~~current utilization rate (approximate percentage rate)~~

- level of technology in comparison with similar processes as used in other countries (especially Western Europe and U.S.)
- operative efficiency
- product design quality
- technical quality of output
- possibilities of improving operation of existing facilities
- possibilities of modernization.

AM (b) - Describe the major types of machinery and equipment as listed in VII. C. with regard to

- type and model (if it is a meaningful indication of the technology embodied in the equipment)
- supplier country
- daily running time (especially for the items which are not normally run continually)
- rating capacity (in terms of quantity or pieces per time unit).

EXPLANATORY NOTES

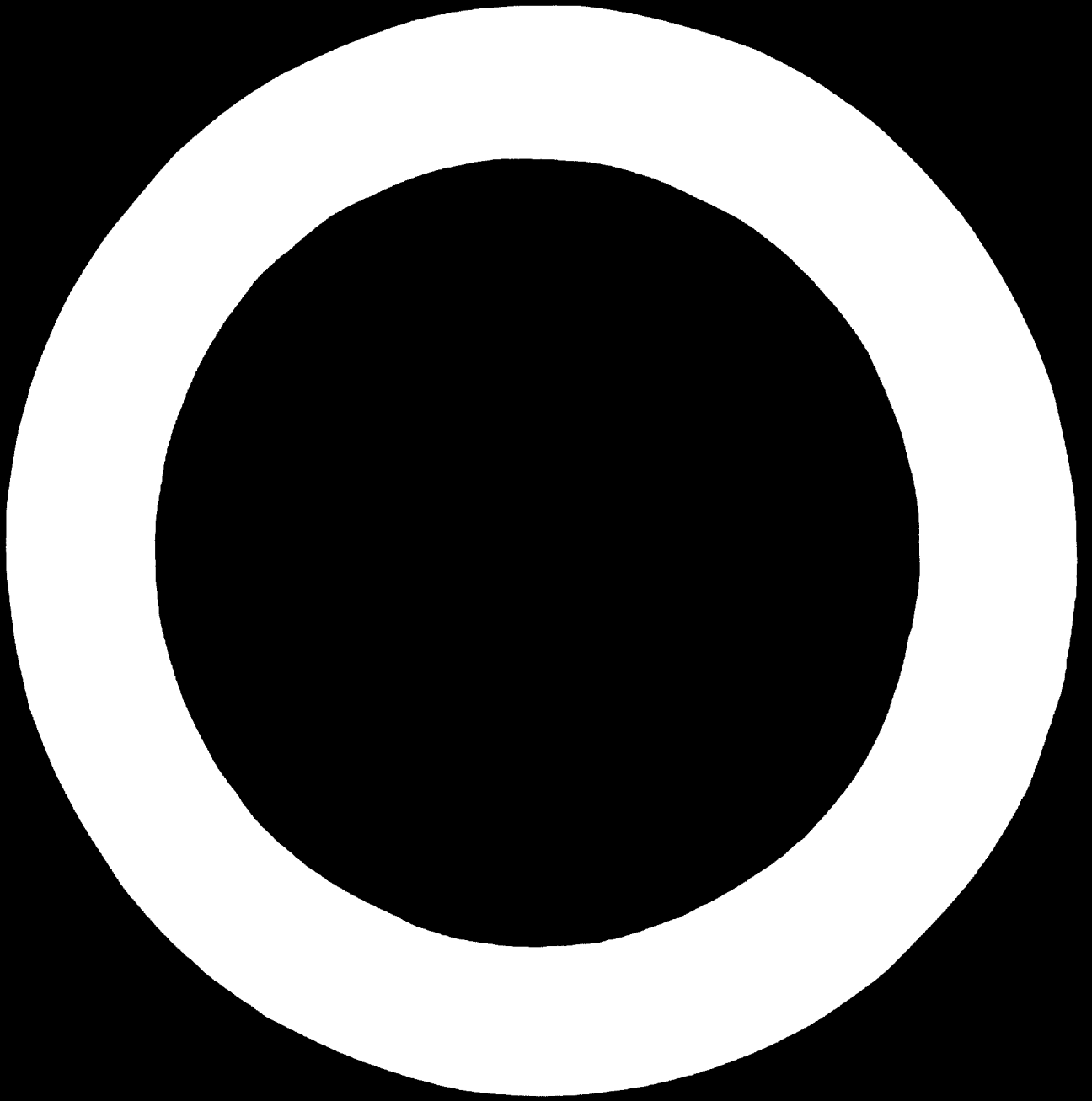
- Ad B.11.1** - Use the process listing to check if the existing classification of operative shops is satisfactory, or as an aid in developing such a classification if it does not exist.
- Characterize each shop or unit by maximum weight of work-piece handled (in kg) or other relevant maximum dimension; by seriality class (unit; small, medium, or large series; mass production); and by precision class (low, medium, high).
 - Distinguish between shops that use the same process but that differ in regard to the above three key parameters (weight, seriality, precision), provided that these shops can in fact be regarded as separate, independent resource elements or cost centers. When a shop has machines of differing characteristics, do not decompose into two separate shops just to accommodate such differences; characterize by the dominant parameter type, and comment in Sec. B.2., page # 53. In doubtful cases, the criterion for defining a single shop or more than one shop should be the prevailing accounting, engineering, or other organizational practice within the establishment.

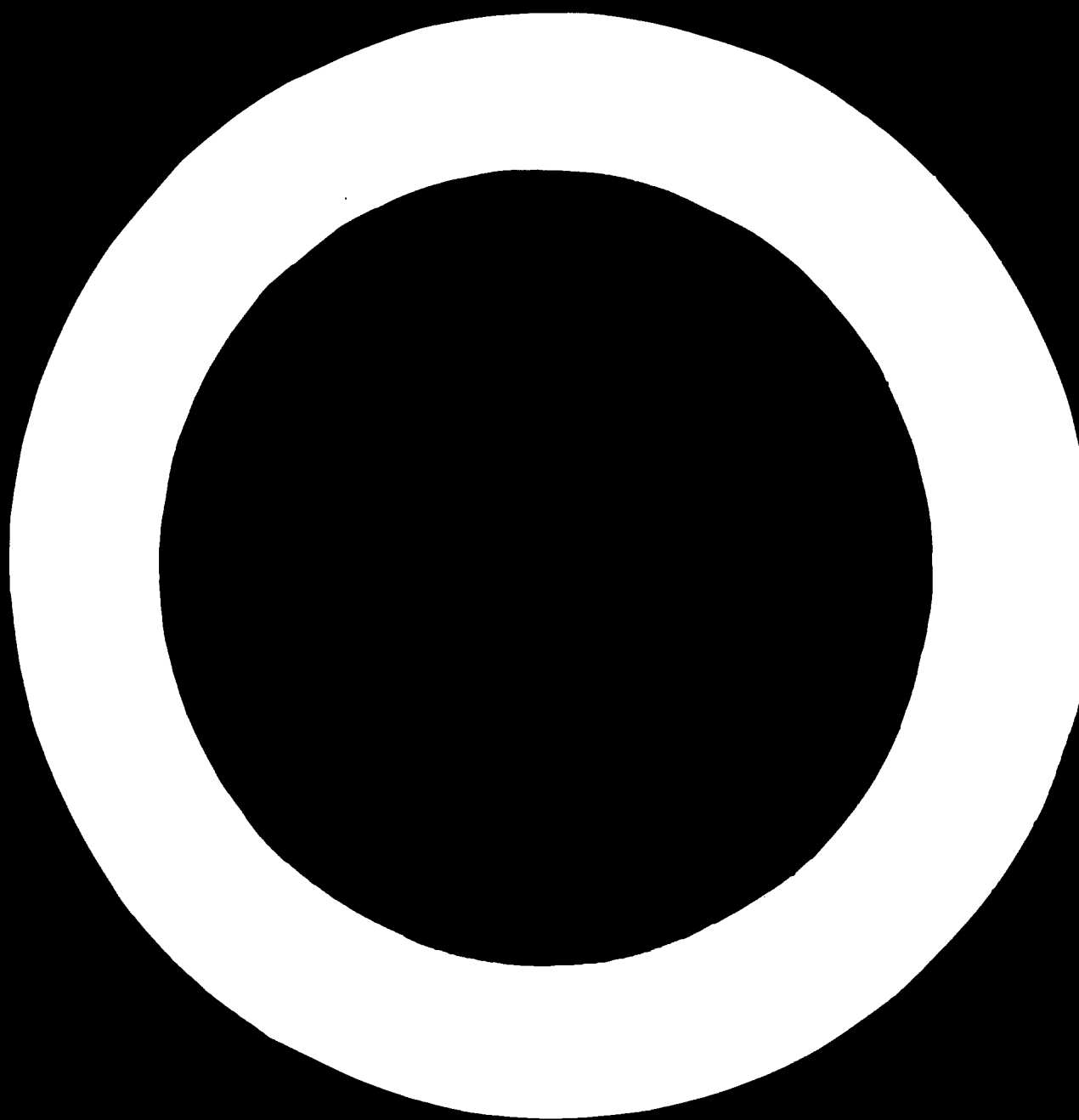
Spec. of Material and Process

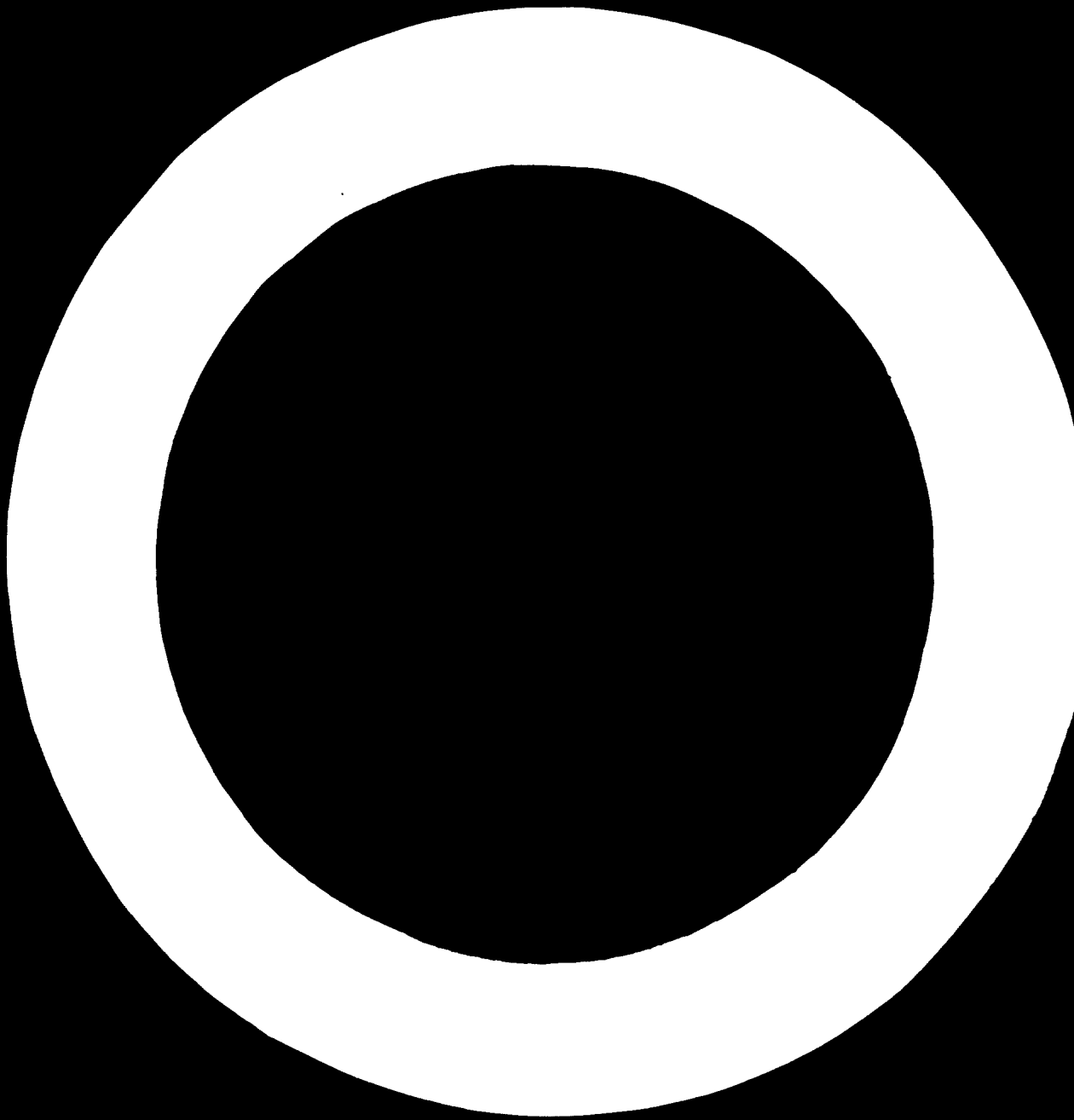


(a) METAL FORMING

Process Code	Process / Questions	Present yes/no	Max wt kg	Seriality	Precision
	Forge, Free				
	Forge, Die				
	Forge, Mixed Free/Die				
	Casting, Iron				
	Sand				
	Mold				
	Casting, Malleable				
	Casting, Steel				
	Sand				
	Mold				
	Casting, Non - Ferrous				
	Sand				
	Mold				
	Die				
	Casting, Precision				
	Mold				
	Die				
	Casting, Other				
	Upsetting (Fasteners)				
	Extrusion (Tubes, Shapes)				
	Roll (Tubes, Shapes)				
	Draw (Tubes, wire)				
	Press, Draw (Tube, etc.)				
	Press, Coin (Emboss, etc.)				
	Press, Bend (Brake)				
	Wind (Motors, Transformers, etc.)				
	Other (Specify)				



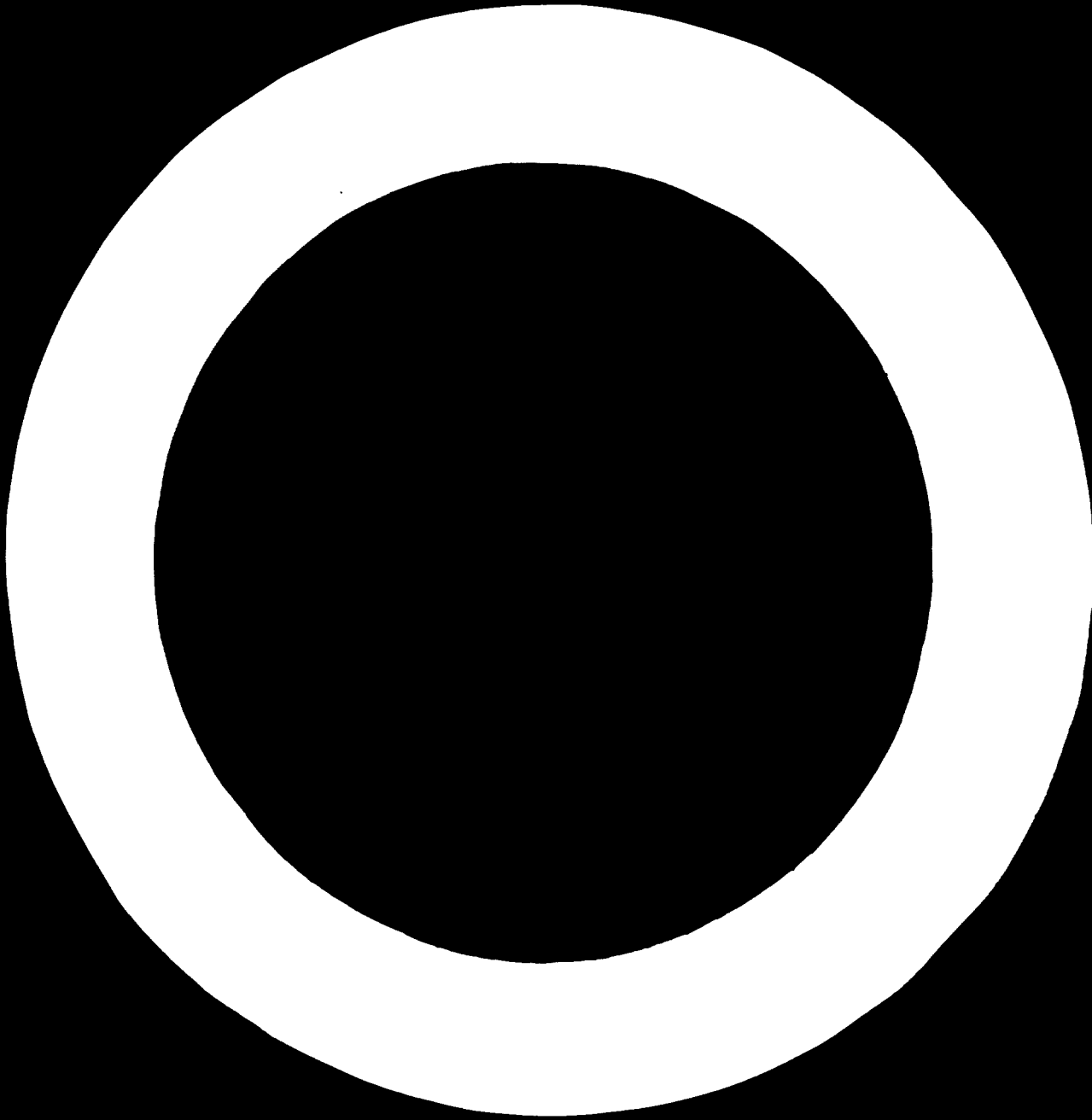


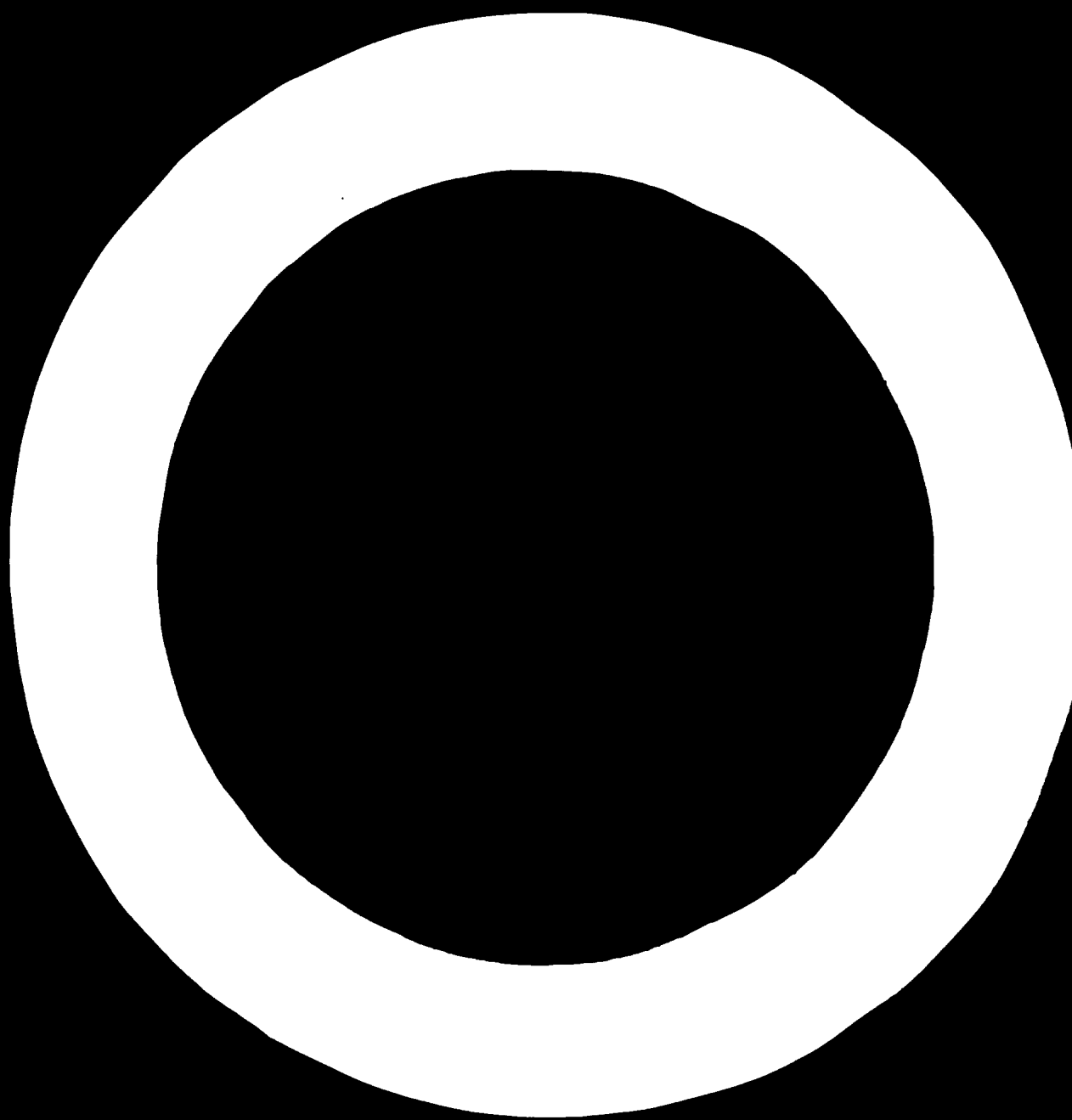


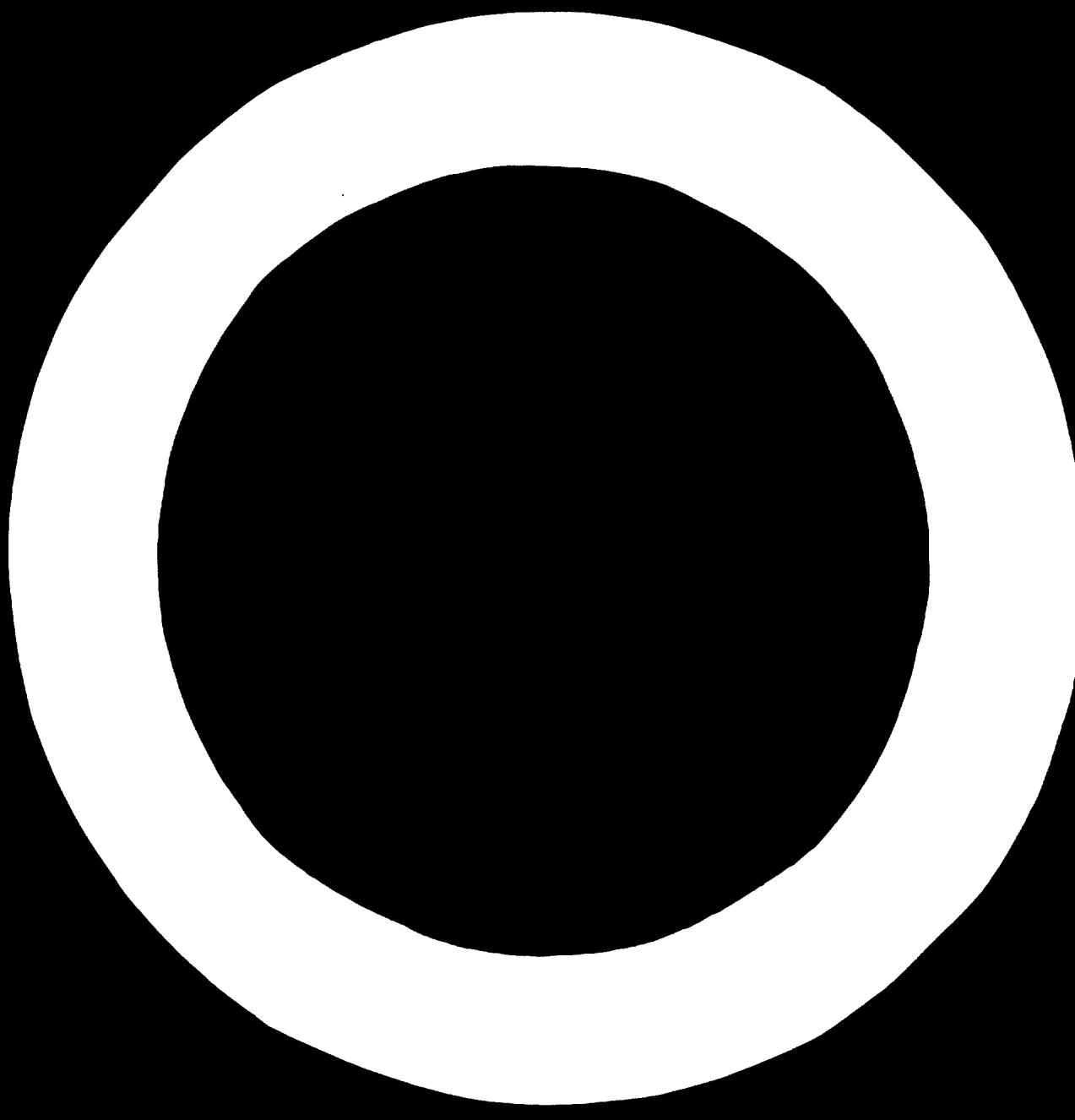
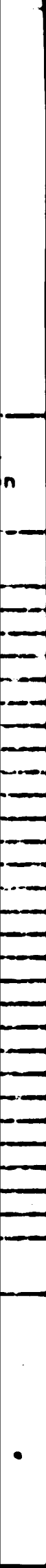
9. 11. OPERATIVE SHOP CHECKLIST (continued): (B)

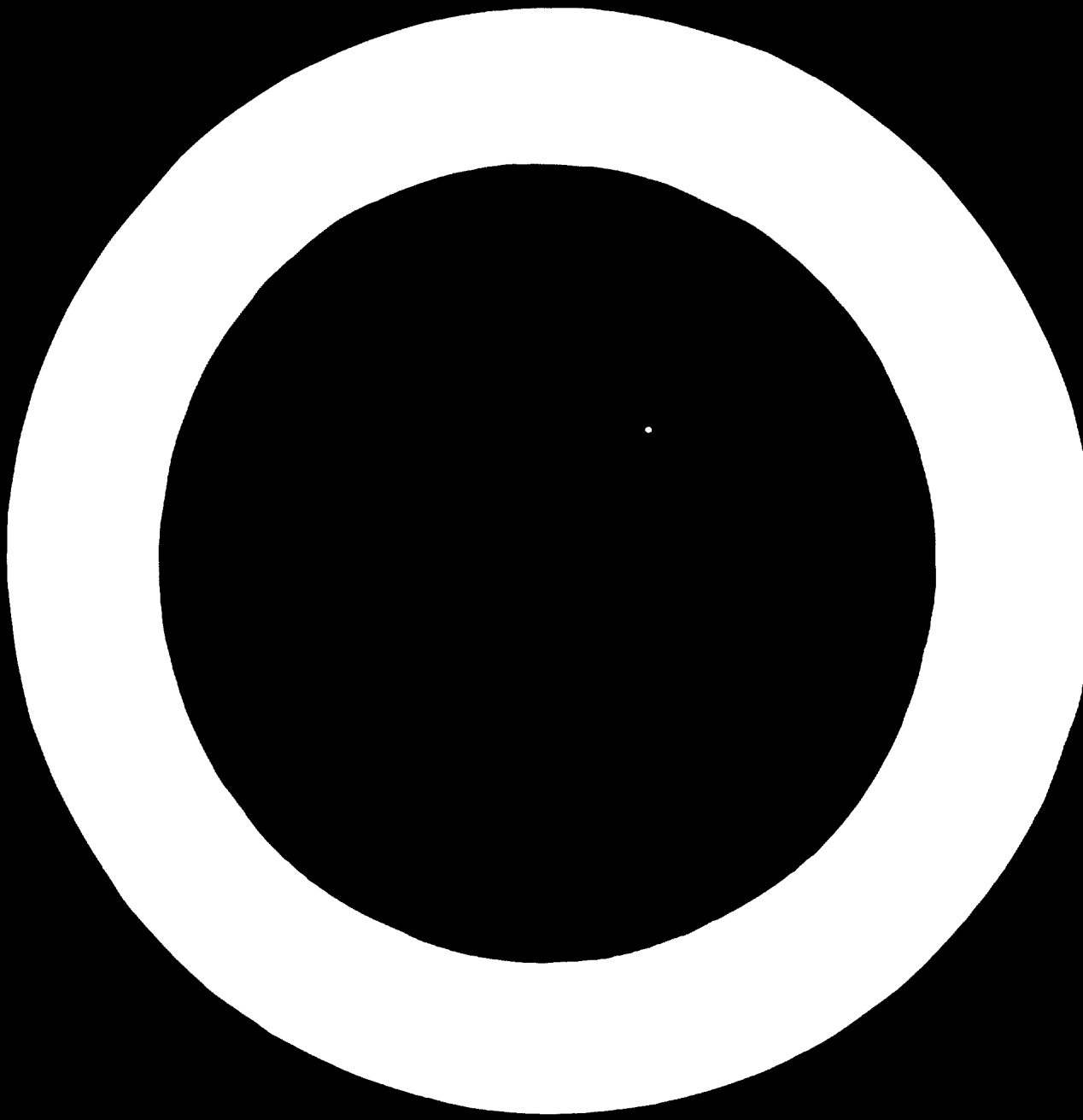
(d) HEAT - TREATMENT OPERATIONS

Process Code	Process	Questions	Present yes/no	Max wt kg	Seriality	Precision
	Furnace					
	Induction					
	Quench					
	Dry					
	Insulate					
	Hot					
	Cold wrap					
	Other (Specify)					









EXPLANATORY NOTES

- Ad 8.12.1 - The seriality of a shop refers to the length of the typical production run. Give both qualitative classification as indicated, and the approximate range of units per production run.
- Precision should be characterized, in so far as possible, by the degree of tolerance routinely achievable.
 - Product assortment should be described by reference to the product lines and specific products listed under II.AA., together with potential new products which are not currently manufactured but which could be produced by the shop.

EXPLANATORY NOTE

Ad B. 3: - Mechanisation (supplement to V.A) should be applied according to the following definitions:

- A = most advanced technology, i.e. it represents the most advanced technology that is applicable today to the particular process considered.
- B = considerably high standard, i.e. highly advanced though it is still inferior to what would be possible with today's most advanced technology.
- C = moderate standard, i.e. the technology of the particular operative shop is rather conventional or traditional but is sufficient for catering for today's market in the country or region considered.
- D = appreciably short of today's standard, i.e. the production facilities of the particular shop can still be maintained effectively but are liable for noticeable degree of difficulty in competing with other firms in the country or region.
- E = almost outdated, i.e. the production facilities of this shop ought to be replaced by newer ones.

- Product quality should be applied in accordance with the following definitions:

- a = good export quality.
- b = marginal for export, but satisfactory for national market.
- c = acceptable for local or provincial markets only.
- d = seriously defective.

~~Ad B. 4: - Capacity output and utilization - a supplement to II.A~~

Ad BB.1: Ad (a): - Make sure that nominal capacity outputs of specific products are indicated under II.A. The requirements for achieving those nominal capacity outputs are to be indicated in ~~B.4(a) and (d)~~ BB.1. (c) and (d).

- 3-shift operation for all the operative and non-operative shops would simply be not actually feasible or desirable from the point of view of production costs. The expert team should check if the underlying assumption on labour shifts is reasonable in the light of the current normal practice in the industry and in the country or region considered.

Ad (a): - In addition to the total required increase in man-years for the operative shops as a whole and for the non-operative shops as a whole, indicate the particular shops for which the full capacity operation is likely to call for man-years input radically different from the actual one.

Mechanization and Automation and Product Quality:

Rating of Mechanization:

- A = most advanced technology
- B = considerably high standard
- C = moderate standard
- D = appreciably short of today's standard
- E = almost outdated

Rating of Automation:

- I = fully automated
- II = partly automated
- III = not automated

Units (see below)	Major primary operative shops	# Product quality	Mechanization	Automation
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()
		()	()	()

Priority **A**: "Units" = major primary prod. departments listed in Sec. V.A.
 Priority **B** and **C**: "Units" = Prod. shops and units listed in Sec. B. 12.

CAPACITY OUTPUT AND UTILIZATION:

B. #18.1. ESTABLISHMENT-LEVEL ESTIMATE:

(a) Estimate the total annual nominal capacity output corresponding to the sum in II.A. for the total annual gross revenue outputs (000)

Thus, the actual over-all capacity utilization rate for the year of reference is considered as being about

(b) In case the actual capacity utilization is rated as rather low, please indicate the major reasons: **A**

Supply of raw materials: _____

Supply of labour: _____

Demand for your products: _____

Technological bottlenecks: _____

Seasonal fluctuations: _____

(c) Assuming that the actual capacity were fully utilized, the required increase in labour in terms of man-years would be:

Priority **A**
 Skip for priority **B** or **C**

	First shift	Second shift	Third shift	(man-years)
- Operative shops:				(" ")
				(" ")
				(" ")
				(" ")
				(" ")
				(" ")
				(" ")
Total				(" ")
- Non-operative shops:				(" ")
				(" ")
				(" ")
Total				(" ")

BB.1.

Ad B.5.1

Ad (d): - The question relates to the effect on the actual capacity utilization in cases where bottlenecks in production facilities may or may not be estimated by assuming that the bottlenecks in any part of the production facilities be all cleared. Consequently, the rate of increase in output to be expected when a capacity-balancing investment has taken place may or may not be larger than the estimate given in B.5.1(a) above.

Ad B. 5.1 - It is important that the transactions between this establishment and other branch establishments, the nature of which are covered by contract and commission work be indicated here, that the cost of such work equivalent to the commissions be estimated in terms of appropriate firm accounting prices. In such cases, be sure that such revenues or costs are properly entered in II.A or III.D.

- Contract and commission work is divided into two types:

Ad (a): - Work performed by the reporting establishment (or firm) on the materials supplied by customers (= contractors).

Ad (b): - Work performed by subcontractors on the materials supplied by the reporting establishment (or firm).

Ad (iv): - The extent of dependence of the subcontractors on this establishment:

- () completely dependent - The subcontractor works solely or primarily for this establishment as though it were an integral part of this establishment.
- () overwhelmingly dependent - This establishment's orders account for over 50% of the subcontractor's total annual proceeds.
- () fairly dependent - This establishment's orders account for less than 50% of the subcontractor's total annual proceeds.
- () practically independent - This establishment's orders account for a small part of the subcontractor's total annual proceeds.
- () long-term - There is a semi-permanent or long-term agreement between the subcontractor and this establishment.
- () short-term - There is a short-term or occasional agreement on contract work.

(A)

BB.1 (d)

Is the actual utilization of capacity constrained by the existing installed capacity of any particular shops or processes, in the sense that a modest expansion of such shops or processes would result in a significantly higher over-all capacity utilization than that indicated above?

() yes () no

If yes, indicate that particular part of the production facilities:

As to the possible expansion of that part of production facilities, check the applicable and fill in the blank box:

- () a total value of investment expenditures of approximately (000) would be enough to make that part of the production facilities technologically balanced with the rest; the total production would then become % higher than the actual level.
- () implying a total value of investment expenditures of approximately (000) the technologically flexible minimum increase in the capacity of the given shop(s) is so large that the over-all capacity would become unbalanced unless the remaining part were also expanded more or less significantly. Admitting such an unbalance, however, the above investment expenditures would make it possible to increase the total production over the actual level by about %.

Section B.5. follows Section B.3. Sec. B.4. deleted. Sec. BB. continues on page # 70.

B. 5. CONTRACT AND COMMISSION WORK:

(B)

(a) Has this reporting unit performed any commission work on the materials supplied by contractors? () yes () no

(i) If yes, major materials which are received from the contractors: _____

(ii) Type of processing work performed on those materials by this reporting unit: _____

(iii) Total commission received annually: (000)

(iv) Organisational features:

- Terms of contract: Indicate the number of contractors (establishments or firms) in parenthesis.

Commission work is based on

- () long-term
- () short-term agreements.

(b) Have any subcontractors performed commission work on the materials supplied by the reporting unit? () yes () no

(i) If yes, major materials which are supplied to subcontractors: _____

(ii) Type of processing work performed on those materials by the subcontractors: _____

(iii) Total commission paid annually: (000)

EXPLANATORY NOTES

- Ad 88.2.: - Continuous operation refers to uninterrupted operation during all hours of the calendar year except those technically required for maintenance. Continuous operation is often unacceptable for institutional reasons. Set these out in "Reasons for discrepancy between continuous and desired maximum capacity." Express as extra over usual 3 shifts, assuming Sunday and holiday work, etc.
- Desired maximum capacity is the level of capacity utilization that is felt to be the highest acceptable for steady, year-round operation, even though higher rates may be tolerated during temporary "crash" production programs. When capacity loading exceeds desired maximum capacity on a regular basis, expansion is called for.
 - Capacity per year in terms of total available manhours. If a shop or unit is under-utilized, its yearly output can be increased by assigning more workers for more hours to run the productive machinery and equipment. This possibility is, however, limited by the capacity of the equipment itself. The latter capacity can, therefore, be expressed as the largest number of yearly assignable manhours. Alternative units for measuring capacity are physical units -- e.g., tons, numbers produced -- and value units, expressed in national currency.
 - Capacity utilization in percent. Express in terms of % of maximum possible production of each shift, if the number of available manhours in that shift is assumed to be increased to the limit of the productivity of the machinery and equipment. Treat each shift separately: for example, under 2-shift operation, the capacity utilization for the two shifts should average out to the capacity utilization of the establishment as a whole. Example:
 - in a given plant the actual capacity utilization may be 90% of first shift and 50% of second shift, with zero% for third shift and 0% for extra for continuous operation. Check off whether the percentage figure is based on total available manhours, total physical units, or total value units.
 - Actual capacity utilization level is average for the past year. The reference level is set for Sec. 88.3., in order to allow estimating the additional input requirements if capacity utilization is increased over actual levels. The desired maximum level has been defined above. The budgeted level underlies the accounting expenditure forecast of the shop. This is the basis for allocating costs over units of output, as e.g., in standard-cost accounting.

BB.2. CAPACITY BY SHOP OR UNIT: B

Fill out a separate sheet for each shop or unit given in Sec. B.12.

(a) General information:

	Unit	1st shift	2nd shift	3rd shift	extra for cont. operat'n
Capacity per yr in total available manhours	mhr				
same, in physical units					
same, in value units					
Capacity utilization: based on:					
<input type="checkbox"/> mhrs <input type="checkbox"/> phys. units <input type="checkbox"/> val. units					
- Actual	%				
- Reference	%				
- Desired maximum	%				
- Budgeted	%				

Reasons for discrepancy between continuous and desired maximum capacity: _____

(b) Answer BB.1.(b) for this productive shop or unit: _____

(c) Answer BB.1.(d) for this productive shop or unit: _____

(d) Reference capacities:

Based on: mhrs physical units value units

Based on: 1 shift 2 shifts 3 shifts continuous oper'n.

Largest in world: _____

Typical efficient size in Western Europe: _____

Minimum economical size: _____

Basis of last estimate: _____

(e) Expansion estimate: expansion can be undertaken:

- in small steps (under 10% of desired maximum capacity)
- in medium-sized steps (10-50% of above)
- in large steps (over 50% of desired maximum capacity)

Estimate of most economical expansion: _____% of desired maximum capacity.

Estimate of minimum economical expansion: _____% of desired maximum capacity.

EXPLANATORY NOTES

- Ad 88.3. Ad (a): Units of measurement: Manning detail in number of men. Wage classes correspond to those in Sec. VI.(a): managers, engineers, etc. Money value of wages paid is given in domestic currency, except, if applicable, a special note should be made of any workers who might be paid in foreign currency.
- Actual level of capacity utilization as shown in 88.2.(a) is the basis for reporting inputs in this section.
 - Materials and supplies. These do not include the metals and other raw materials, components, and sub-assemblies directly incorporated into the product, but refer only to the indirect requirements of the shop itself. Be sure to include maintenance materials, spare parts for machinery, , as well as technical, engineering, and other services purchased for the shop from the outside, in so far as these are employed at the level of the shop or the unit as a whole; for example, purchased maintenance services. (Items that can be directly allocated to individual products are not shown here, but are given, by representative products, in Sec. 88.2.) Set out imported items as a separate category and show foreign exchange value at c.i.f. level, and importer's domestic costs in domestic currency; these should total to actual cost. See explanatory notes Ad AA.2: "Imported materials cost."

12.3. INPUTS BY SHOP OR UNIT.

(B)

Fill out a separate sheet for each shop or unit as given in Q. 12.

(a) Actual inputs:

	Unit	1st shift	2nd shift	3rd shift	extra for cont. operation
Manning detail, no. of men					
Wage class 1					
2					
3					
4					
5					
6					
7					
Total:					
Wages paid, total by class					
Wage class 1					
2					
3					
4					
5					
6					
7					
Total:					
Materials and sup., phys. units					
Class 1 (power)	KWH				
2 (imported items)					
3 (omit)					
4					
5					
6					
Materials and supplies, value units					
Class 1 (power)					
2 (imported i.c.i.f. value)	\$				
3 (importer's dom. cur. cost)					
4					
5					
6					
Totals:					

(Fill out a separate sheet for each additional shop or unit.)

EXPLANATORY NOTES

Ad 88.3. Ad (b): - To be reported: Additional inputs that would be required over and above actual inputs if the shop or unit were operated at the reference level of capacity utilization given in Sec. 88.2.(a).

Ad (c): - To be reported: Budgeted inputs for the shop or unit that are included in the accounting forecast that had been prepared by the accounting department of the establishment for the current operating year for each shop or unit. If this much detail is not available in the existing accounts, allocate aggregate accounting costs between shops or units. Be sure that the basis of these accounting forecasts corresponds to the same "budgeted" level of capacity utilization that is included in Sec. 88.2.(a).

- Note that in standard-cost accounting systems that may be encountered in the more modern establishments, the budgeted costs of each shop or unit are allocated to units of output produced, in proportion to direct labor hours. Make a special remark concerning the kind of accounting system present, and the basis for estimates given.

B

BB.3. INPUTS BY SHOP OR UNIT (continued):

(b) Additional inputs (over actual) that would be required for reference level of capacity utilization:

Use additional copies of the questionnaire sheet of Sec. BB.3. (a), above, to answer this question.

Fill out a separate sheet for each shop or unit given in B.12. (Re-label "Additional inputs for reference level")

(a) Budgeted inputs:

Use additional copies of the questionnaire sheet of Sec. BB.3.(a), above, to answer this question.

Fill out a separate sheet for each shop or unit as given in B.12. (Re-label "Additional inputs for reference level")

EXPLANATORY NOTES

Ad 88.4.1: ~~Ad (a)~~ - Indicate the distribution of the capacity of the shop or unit to each specific product or product group listed in Sec. II.AA.

- Show totals for major product lines as listed in II.A.
- Take as the basis of capacity distribution the desired maximum capacity as shown in Sec. 88.2.(a).

Ad (b): - See explanatory notes to Sec. 88.1.(b).

Ad (c): - Comment on whether capacity utilization can be readily shifted between the products listed in (a), or does the product assortment have to remain fairly stable? Comment on the reduction of total indicated capacity and particular bottlenecks that would arise if major shifts of output assortment -- to be illustrated by examples -- were to occur.

EXPLANATORY NOTES

- Ad BC.1.1 - Representative products are chosen to reflect the technical-economic characteristics, particularly with respect to input structure and manufacturing processes, of a major product line. Give on the average one representative product for each 10-12 specific products, but no less than one per major product line. Where specific products within a major product line differ markedly with respect to input structure or manufacturing processes, increase the number of representative products correspondingly.
- Similarity: judgements in this respect should be based on input structure as developed in B.12.
 - Parametric relations: Often a systematic shift of related inputs is encountered between products that are characterized by a similarity to a given representative product. For example, the weights of axle, stator, and rotor shift systematically with HP for electric motors of a single design. If such shifts can be quantified, note the applicable relationship and indicate the parameters involved, such as HP rating or total weight, tolerance, etc.

EXPLANATORY NOTES

- **Ad 8C.2.1** - The input structure is requested only for a limited number of representative products, since the detail is too onerous to be given for all specific products that are listed in II.AA.
- Be sure to give the individual inputs for a selected, specific representative product, and not average inputs for a group of products. The importance of this must be heavily emphasized, since average input structures have only a drastically reduced usefulness for the purposes of industrial profiles and programming.
- Domestically purchased materials, components, and direct services. Specify separately the major materials, components or component groups, and those direct productive services purchased, that are capable of being allocated to individual units of output: for example, ¹⁰¹semi-finished products sent out to be heat treated by another establishment, show the heat-treatment service purchased. (See also the explanatory notes to Sec. 8B.3., page # 71.) Show items under this heading in units of domestic currency; at end, show a total in same units.
- Imported materials, components, and direct services, c.i.f. Specify in foreign currency (dollar equivalent) including only cost of acquisition from foreign supplier, insurance, and freight charges to port of entry.
- Imported materials, components, and direct services: importer's domestic costs. For each item listed under previous head, show total -- if any -- of customs duties, customs clearance charges, and other necessary institutional costs paid out in domestic currency, plus any domestic freight and related charges from port of entry, if customarily paid by importer. Do not, however, include wholesale or retail trade margins. The total of c.i.f. costs and importer's domestic costs is the actual imported cost.
- Make-or-buy alternatives. The existing production pattern is generally only one of several possible make-or-buy alternatives that differ among themselves in regard to the extent to which subassemblies, components, and technical services (e.g., heat treatment, high voltage testing, etc.) are internally produced or purchased from the outside. Occasionally, more than one pattern will be actually present in an establishment, as when some component is in part internally made and in part purchased. It will, however, always be necessary to estimate much of the information pertaining to make-or-buy alternatives other than the principal one actually employed. Check off for each alternative whether it is an actual (existing) or -estimated (not currently used) alternative.
- All buy. Always estimate this alternative, defined as either the domestic purchase price or the import price (broken down into foreign-currency (c.i.f. price) and domestic-currency (importer's domestic cost) parts); for the product as a whole. This should not include any processing, not even final assembly.
- All make. For priority C, always estimate this alternative. (cont. p. 92, cont.)

EXPLANATORY NOTES

continued:

- Existing process shops and units: be sure to include every shop or unit from Sec. B.12. which provides significant processing inputs or other services for the representative product in question. Use as the unit of measurement for input the same unit (direct manhours or physical capacity unit) in terms of which capacity utilization percentages have been expressed in Sec. B8.2.
- Missing process shops and units: these generally have to be specified for the high-make or all-make alternative in the make-or-buy group and for other new technical alternatives that are envisaged. Since these shops or units are not included in Sec. B.12., a separate section, Sec. B0.1., is provided for describing them.

- Ad (b):** - Use this space to comment on the selection of the make-or-buy or the technical alternatives. Relate this selection to the structure of the component explosion for the product, specifying the major sub-assemblies, lower-level subassemblies, and components. Indicate where major make-or-buy choices or technical choices exist along this component explosion, and how the relatively small number of alternatives for the input listing for the product have been arrived at.
- Be sure to include comments concerning customs duties and quantitative import restrictions (quotas, embargoes) that affect either the availability of imported materials, components, and services, or the economic significance of the all-buy alternative if it is based on import.

Ad B.2.1 (continued from page 80)

even if rough approximations are necessary. List missing process shops and unit that would be required for undertaking this alternative (see second part of questionnaire sheet, next page).

- Other technical alternatives. In some establishments, a product may be produced by more than one technique. Generally, it will however be necessary to estimate alternatives not in actual use. An effort should be made in particular to make such estimates for potential new technologies that are under consideration or are used by foreign or other domestic producers.

EXPLANATORY NOTES

- Ad BD.1.3 - In drawing up a consolidated list of missing shops and units, attempt some standardization so that a shop or unit capable of serving the needs of several representative products shall not be listed more than once.
- Notes. Indicate the key characteristics of each shop or unit, such as the product weight and seriality ranges.
 - Capacity. Indicate the estimated capacity of the missing shop or unit, in direct manhours per year or in suitable physical units. More precise information on this will be requested in Sec. BD.2.
 - Investment requirement. Estimate the amount of investment that would be required if the missing shop were added at the capacity indicated.
 - Prospects. Grade as follows:
 - A = under construction
 - B = investment decision already favorably taken
 - C = attractive but no decision taken as yet
 - D = fair but not an immediate prospect
 - E = not desirable

~~CONFIDENTIAL~~

Ad B0.2.: - All data requested in this section are likely to be available only as rough estimates. These are, however, valuable and should be reported. Qualify reliability if feasible.

Ad (d): - The questions in Sec. B0.2.(a) ask for more detail than is likely to be available for new technologies projected as potential alternatives for the future. The key information sought pertains to: (i) how large the new unit will (or would) be built, i.e., what is its maximum capacity; (ii) how much of this capacity will (or would) initially be utilized. Comment on the basis of these estimates.

BB.2. NEW SHOP OR UNIT DESCRIPTIONS:

Fill out a separate set of sheets, as indicated in (a), (b), (d), below, for each missing shop or unit listed in BB.1., and a common sheet for all shops or units in BB.1., as indicated in (c) below.

- (a) Use a supplementary sheet from Sec. B.12. for the identification of each new shop or unit.
- (b) Use a supplementary sheet from Sec. B.2. to describe the technological features of each new shop or unit.
- (c) Fill out a common sheet for all new shops or units as listed in BB.1., using a supplementary copy of the sheet for Sec. B.3., giving data on mechanization, automation, and product quality for new shops or units.
- (d) Use a supplementary sheet from Sec. BB.2 to characterize the projected capacity of each new shop or unit. (Skip sections (b) and (d) of supplementary sheet from Sec. BB.2.)

EXPLANATORY NOTES

- Ad BE.1.0 - List potential new products first by existing major lines of production as given in II.A. For each major product line in which potential new products occur, specify each new product or "product group" (see notes for II.AA.) individually. Next, specify potential new major product lines one by one; for each, give individual products or product groups.
- Serial number. Give each new product a running serial number. This number will be referred to in Sec. BE.2. in lieu of reproducing the entire set of line headings all over again.
 - Shop or unit capacities required: flag relative importance.
 - Slack. Some (), several (), or most () shops or units required, currently have unused capacity with respect to desired maximum capacity utilization (see Sec. BB.4.).
 - Light. Some (), several (), or most () shops or units required, currently have little or no unused capacity with respect to desired maximum capacity utilization (see Sec. BB.4.), and will probably require expansion.
 - New kind. Some (), several (), or most () shops or units required, now do not exist within the establishment. If only minor modifications of or additions to existing production facilities in existing shops or units are required, do not flag.
 - Prospects. Grade as follows:
 - A = preparations for production are underway
 - B = decision has been taken to go ahead
 - C = attractive but no decision taken as yet
 - D = fair but not an immediate prospect
 - E = not desirable

EXPLANATORY NOTES

Ad B.2.1 - Unit. See notes to Sec. II.A.

- Estimated initial yearly output. Refers to marketable output. See Sec. II.A.
- Estimated factory cost. The definition of factory cost follows the one given in Sec. AA.2.
- Competing product. Refers to the same product domestically produced by others or imported. The price of this competing product determines how attractive the new product will be to the establishment. Note that "competing product" does not refer to substituted products competing with the product in question.
 - For domestic competing product, give the lowest ex factory price (excluding sales tax) of local producers. If the competing product is produced in a distant domestic location, use delivered price in local area (ex sales tax) instead of ex factory price.
 - For imported competing product, give three items:
 - (i) c.i.f. price including cost, insurance, and freight, at port of entry;
 - (ii) importer's cost including c.i.f. price plus importer's domestic costs (customs duty, customs clearance charges and other necessary institutional costs, and domestic freight from port of entry. Do not include wholesale or retail trade margins. Importer's domestic costs should be given here at currently existing levels;
 - (iii) if the introduction of a new product is conditioned on new tariff or other protection, estimate the resulting effective competing price of the imported product.

ADMINISTRATIVE NOTES

Ad BC.2. Ad (b): - Comments should cover:

- Quantitative import restrictions as they influence effective competing import prices. (See notes to Sec. BC.2.(b), page # 82.)
- Basis of initial production estimates and growth rates of anticipated market. See also Sec. CC, page # 97.
- Basis of factory cost estimates.

Ad BC.3. Ad (a): - In existing major production lines, define new representative products only if new kinds of production shops or units (including those capable of handling substantially heavier or higher-precision output) are required. For entirely new major production lines, follow instructions to Sec. BC.1.

Ad (b): - Follow instructions of Sec. BE.2. Where precise figures are unavailable, even rough estimates are valuable.

EXPLANATORY NOTES

Ad BE.4.1 - List only required new kinds of shops or units as missing, not those requiring expansion. The latter are listed in Sec. BE.6.

- If the required shop is of the kind already existing within the establishment, but there is a new requirement for substantially higher weights or dimensions of workpieces to be handled, or for higher precision levels, the required shop is to be treated as a new kind of shop.

Ad BE.6.0 - A product by product estimate of percentage requirements for the capacity of each shop or unit will indicate, by comparison with Sec. BE.4., whether a potential new product, taken by itself, would be able to draw on existing capacity reserves, or would require an expansion of facilities. Do not include here estimates relating to production programs that consist of combinations of new products.

EXPLANATORY NOTES

Ad C. 1 - The section relates to the market conditions of the products which are manufactured by the establishment (or firm). If the reporting unit is a branch establishment of an enterprise and is dependent on the sales department of the enterprise for marketing of its products, attempt should be made to obtain information from a relevant department or branch of the parent enterprise.

Ad C. 1.1 - Packaging and relabelling alone are not considered as a manufacturing activity except in the case of the industries specialized in bottling, canning and the like. Note that the revenues from re-sales and the cost of materials purchased for re-sales should not be counted in annual production and material consumption in Part I.

Ad C. 2.1 - Indicate the important types of final users of the major products of the establishment (or firm)

- General consumers (household) and/or
- Industrial users (specify major types of industries).

See also Sec. II.0.

Ad C. 3.1 - Explain here briefly the types and methods of the sales organization. In particular the extent to which

- own sales agents are contributing
- market research services are utilized
- production is programmed to orders, etc.

Ad C. 4. Ad (a) - Give the characteristics of the minimum size of market that would be required for this establishment (or firm) in its present scale of production to operate profitably. If the products are consumer goods, indicate roughly

- the required minimum (or approximate) size of population and its average income level.

- If the products are producer's goods, specify

- the types of industries which can use these products
- the approximate minimum scale of the major using industry.

Ad (b) Ad (i) - Indicate if the establishment is faced with the competition with other domestic producers.

Ad (ii) - Indicate if the major products of the establishment are competitive enough internationally to initiate or maintain or increase the exports in any foreign countries.

Ad (iii) - Explain any differential export price policies and their connection with collateral benefits (import licenses, export subsidies, etc.)

Ad (iv) - Describe any specific problems in competing with imported products with regard to product quality and price. Indicate the tariff rates or other protective policies being adopted to protect the domestic production from competitive imports.

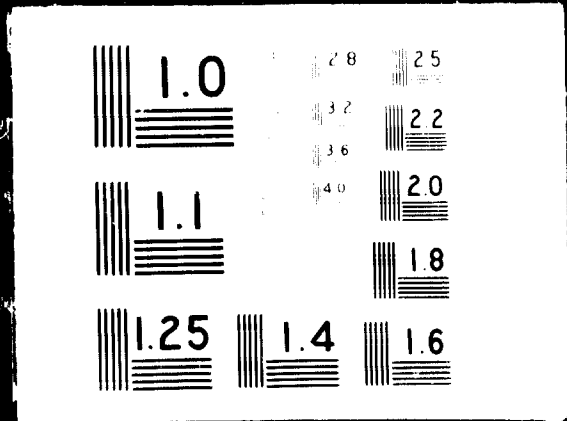


3 . 12 . 73

3 OF 3

DO

0922



BE.4. LIST OF MISSING SHOPS OR UNITS FOR POTENTIAL NEW PRODUCTS:

Return to Sec. BD.1. to list missing shops or units for potential new products. Consolidate these with Sec. BD.1.

BE.5. NEW SHOP OR UNIT DESCRIPTIONS FOR POTENTIAL NEW PRODUCTS:

Return to Sec. BD.2. to describe the characteristics of missing shops or units required by potential new products. Consolidate these descriptions with Sec. BD.2.

BE.6. CAPACITY RESERVES AND EXPANSION REQUIREMENTS FOR POTENTIAL NEW PRODUCTS:

Use a supplementary sheet from Sec. BB.4. for each shop or unit whose capacity is required for potential new products. Use this sheet as a continuation of the capacity distribution given in Sec. BB.4., listing the estimated capacity requirements of potential new products, in the sequence followed in Sec. BE.1. Do not consolidate with Sec. BB.4., but report separately in the present section.

UNITED NATIONS  NATIONS UNIES
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

C. MARKET CONDITIONS -- EXISTING PRODUCTS:

(A)

C. 1. RE-SALES:

Was the establishment (or firm) engaged also in selling goods on which no substantial processing has been carried out by you? () yes () no

If yes, describe the major products for re-sale of the establishment (or firm) in detail:

C. 2. CONSUMERS OF PRODUCTS:

C. 3. SALES ORGANIZATION:

C. 4. MARKET AND COMPETITION:

(a) Extent of the market: _____

(b) Conditions of actual market:

i) Share in domestic market: _____

ii) Prospects of exports: _____

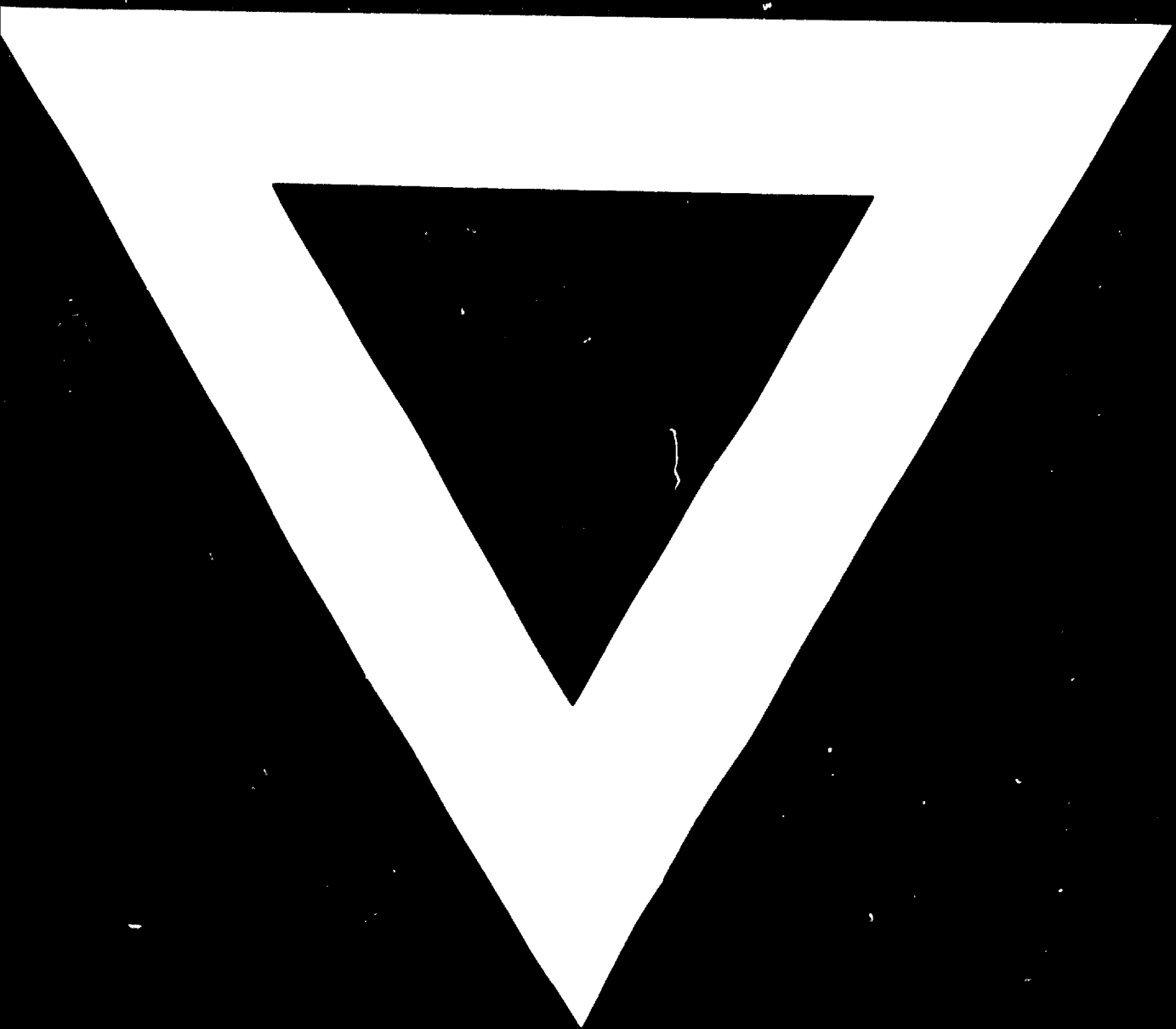
iii) Export price policy: _____

iv) Competition with imported products: _____

EXPLANATORY NOTES

Ad CC.: - All questions in Sec. C. are to be applied here to potential new products.





3 . 12 . 73