

- F1. Fielding and Platt Ltd.,
Atlas Works,
Gloucester.
Tel. Gloucester 20351.
- Equipment design and manufacture
for metal forming, particularly
hydrostatic extrusion.
R.H. Green
C.C. Manners
R. Madeley
J. Averill
- We manufacture a standard hydrostat (up
to 7.5kb) capable of forming billets 4"
dia. x 9" long.
Pressures used fall into two phases :-
(a) up to approx 15 kb conventionally.
(b) up to 30 kb with pressure backing.
- F2. G. and A. Firkins Ltd.,
Firtop Works,
Stock Heath,
Bromsgrove, Worcs.
Tel. Bromsgrove 3246.
- Design and manufacture of high
pressure equipment.
J.F. Gist
F.C. Caplin
- Pressure vessels in all materials.
High pressure filtration of liquids and gases.
Test equipment includes pressure gauge test
unit to 280 bars.
Static oil hydraulic unit with H.P.
intensifier to 350 bars. Hydraulic
pressure test rig (water or oil) with air
intensifier up to 700 bars. Horizontal valve
test unit 0 - 200 bars.
- G1. The General Electric Co. Ltd.,
Hirst Research Centre,
Wembley, Middx.
Tel. ARNold 1262.
- Autoclave design.
Hydrothermal crystal growth.
T.B. Copestake
- Autoclaves to 3 kb at 600°C.
- G2. Dept. of Electrical Engineering,
The University of Glasgow,
Glasgow, W.2.
Tel. WEStern 8855 ext. 303.
- Physical studies. Viscosity of
liquids at high pressure; visco-
elastic relaxation and the dependence
of relaxation time and shear rigidity
modulus of liquids upon pressure;
theory of free volume.
John Lamb (Prof).
A.J. Barlow
G. Harrison
- One high pressure system; 14 kb.,
working volume 1½ in. dia. x 8 in. long,
up to 100°C.
Three systems, 3 kb. (a) 2 in. dia. x 4 ft.
long; (b) 2 in. dia. x 2 ft. long; (c) 1½ in.
dia. x 10 in. long. (a) and (b) up to 100°C,
(c) up to 300°C.
One system, 1 kb. 2 in. dia. x 1 ft. long - up
to 100°C.
- G3. Mechanical Engineering Research
Annexe,
The University of Glasgow,
49 Spencer Street,
Glasgow W.3.
Tel. Scotstoun 2035.
- Measurements on thermodynamic and
transport properties of water and
steam, involving flow calorimetry,
viscometers and thermal conduct-
ivity cells. Transport properties of
gases.
E.A. Bruges
W.W. Mackie
S.K. Nisbet
- Steam generator (1000 bar, 750°C); dead-weight
gauges (1000 bar); viscometers for compressed
water (1000 bar; 0°C - 400°C); thermal conduct-
ivity co-axial cylinder cells (1000 bar; 0°C -
400°C).

<u>Organisation.</u>	<u>Field(s).</u>	<u>Equipment.</u>
H1. ✓ High Duty Alloys Ltd., (Extrusion Division), Winscale, Workington, Cumberland. Tel. Workington 2581.	Forming of metals. F.G. Haddock S.H. Hibberts	All our equipments are conventional hot aluminium extrusion presses. We have done limited experimental work using a 2,000 ton press for hydrostatic extrusion : chamber size 7" dia., 30" long and pressure of <u>6 kb</u> . All experimental work has so far been done at room temperature.
H2. ✓ Dept. of Applied Physics, University of Hull, Hull. Tel. Hull 408960. ext. 590.	Equipment design - modifications to conical belt apparatus. Physical studies - Using radial D.T.C.A. to study phase-change phenomena in alloy systems - preliminary studies on cobalt alloys. S. Nichols	400 ton press. Conical belt system (modified) - in use. Pressure range of present work → <u>100 kb</u> . Temperature range of present work → 2000°C.
I1. Research Dept., Heavy Organic Chemicals Division, Imperial Chemical Industries Ltd., Billingham, Co. Durham. Tel. Stockton 53601.	The chemistry of olefins and simple gases, such as carbon monoxide, with a particular emphasis on the use of transition metal catalysts. Design of blast resistant structures to contain potentially explosive reactions and high pressure equipment. G.A. Rowe W.G. High	100 ml and 300 ml, inductively heated, stirred batch autoclaves suitable for working at 3 kb and 300°C. Autoclaves lined with Ag or 18/8 Tu. Mercury compressors and associated equipment. 300 bar gas diaphragm compressor 0.15 M ³ /hr STP throughput. 300 bar rocking and stirred autoclaves up to 25 l. volume and 300°C.
I2. Research Dept., Mond Division, Imperial Chemical Industries Ltd., P.O. Box 7, Winnington, Northwich, Cheshire. Tel. Northwich 4444.	Chemical synthesis. Polymerisation reactions. Hydrothermal synthesis. Physical studies. G.H. Manning N.H. Ray	A range of stirred batch reactors with volumes between 80 ml. and 1 litre, working pressure up to 4 kb and temperature up to 550°C. A continuous flow tubular reactor with volume of 7 ml., pressure up to 2.5 kb and temperature up to 1,000°C.