h-p and l-p turbines. Take-off 9,850lb; b.p.r. 1.0-1; mass flow 203lb/sec; pressure ratio 16.8:1; length 110in; width 41in; height 45in; weight 2,220lb.

RB.163-28 Mk 512 Alt-fan Civil twin-spool/free-turbine aft-fan turboshaft. Study model for projected BAC One-Eleven 600, comprising Spey-25 Mk 512 with addition of aft-fan driven by free-turbine operating in Spey exhaust flow to give increased thrust with reduced s.f.c. and take-off noise. Overall b.p.r. is increased to 5.7:1 with initial rating of about 15,000lb rising with development to 17,000-18,000lb. Intended later that aft-fan unit (which has own annular intake) would have reversible pitch fan blades to eliminate for separate thrust reverser.

RB.162 Military single-shaft lift engine. Second-generation Rolls-Royce turbofan derived from the original military engine for the Vickers V.1000. Applications Boeing 707-420, 4 x Conway RC.12 Mk 508 (17,500lb). Douglas DC-8 Series 40, 4 x Conway RC.12 Mk 509 (17,500lb).

Conway RC.12 Civil twin-spool turbofan. Pioneering commercial turboshaft derived from the original military engine for the Vickers V.1000. Applications Beechcraft Model 99, 2 x Conway RC.12 Mk 508 (17,500lb).

RB.164 Avon 300 Military single-shaft augmented turbojet. Most powerful military Avon, introduced for later versions of the BAC Lightning. License-manufactured by Flygmotor as RM6, with Swedish afterburner, for Saab 35 Draken series. Applications BAC Lightning F6, T5 and T Mk 55, 2 x Avon Mk 301 (12,600lb, or 16,800lb with afterburning). BAC Lightning F.5, 2 x Avon Mk 302-C (11,100lb, or 16,300lb with afterburning).


Avon RA.29/1 Sixteen-stage compressor, cannnular combustor, three-stage turbine. Take-off 10,250lb; pressure ratio 9.0:1; length 126in; diameter 39in; weight 3,343lb.

RB.90 Avon 200 Military single-shaft augmented turbojet. Major military version of the Avon. License-manufactured by Fabrique Nationale, and by Flygmotor as RM5 with Swedish afterburner to power Saab Lanseer. Applications BAC 221, 1 x Avon RA.28R Mk 310 (14,430lb with afterburning). BAC Canberra Mk 9, 2 x Avon RA.24 Mk 206 (11,250lb, or 14,370lb with afterburning). BAC Lighting F2, 3 & 5, 2 x Avon RA.24 Mk 210 (11,250lb, or 14,370lb with afterburning). BAC Scimitar F1, 2 x Avon RA.24 Mk 202 (11,250lb). Hawker Siddeley Hunter Mk 9, 10 & 12, 1 x Avon RA.28 Mk 207 (10,150lb). Hawker Siddeley Sea Vixen FAW2, 2 x Avon RA.24 Mk 208 (11,250lb).

RB.90 Avon RA.28 Mk 208 Fifteen-stage compressor, cannnular combustor, two-stage turbine. Take-off 11,250lb; length 126in. diameter 28in.

Dart Civil and military single-shaft turboprop. Outstandingly successful turboprop, still in quantity production since starting in 1955. Applications BAC Project 201, 2 x Dart RDa.7/2 (2,230 e.h.p.). BAC Viscount 700, 4 x Dart RDa.6 Mk 510 (1,670 e.h.p.). BAC Viscount 800, 4 x Dart RDa.6 Mk 510 (1,670 e.h.p.), or Dart RDa.7 Mk 520 (1,815 e.h.p.), or Dart RDa.7/1 Mk 525F (1,910 e.h.p.), or Dart RDa.7/2 Mk 530 (2,020 e.h.p.). Breguet 1050 Alizé, 1 x Dart RDa.7 Mk 21 (2,020 e.h.p.). Cavalier Aircraft Mustang 3 Conversion, 1 x Dart RDa.6 Mk 510 (1,440 e.h.p.) or Dart RDa.7/2 Mk 529 (2,185 e.h.p.). Convair 640/640, 2 x Dart RDa.10 Mk 542-4 (2,025 e.h.p.). Fairchild Hiller F-27, 2 x Dart RDa.6 Mk 511 (1,670 e.h.p.). Fairchild Hiller F-27A & F, 2 x Dart RDa.7 Mk 528-TE (2,105 e.h.p.). Fairchild Hiller F-27B, 2 x Dart RDa.6 Mk 514-7 (1,850 e.h.p.). Fairchild Hiller F-27C, F-27D.

Under joint development and manufacture by Rolls-Royce's Bristol Engine Division and Snecma in France, the M45H civil twin-spool turboshaft has been designed to meet the economical fuel consumption requirements of Germany's VF6/W164 short-haul airliner.