

## TEST EQUIPMENT FOR RAM-AIR TURBINES

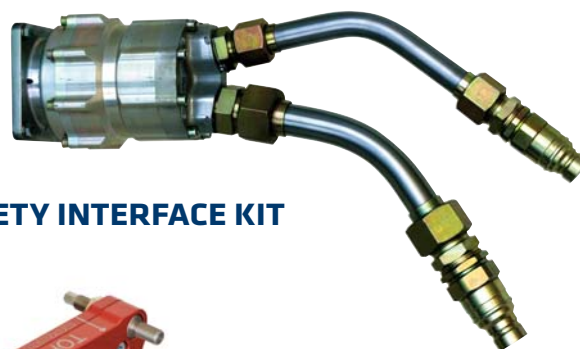
### TEST EQUIPMENT RAT

>PGRAT1<



### GROUND CHECK MOTOR RAT

>RATMK<



### RAT SAFETY INTERFACE KIT

>RSIK1<



AIRBUS CERTIFIED

#### > Originally designed for

- A318,
- A320 (from S/N 1050),
- A330 - 200/300,
- A319,
- A321,
- A340 - 200/300/500/600

#### > Test device and RAT-Motor AIRBUS certified

- >PGRAT1< Certificate-No: D 29065, D 29066
- >RATMK< Certificate-No: D 29071, D 29072
- >RSIK1< Certificate-No: D 29057

#### > ATA Chapter 29

- > This test equipment is necessary to accomplish a functional test of the Ram Air Turbine (RAT)
- > Compact stainless steel construction
- > Storage space for RAT-Motor, cables and hoses in the test device
- > Skydrol-resistant construction with sealed electrical chamber and safety glass cover plate
- > RAT-Motor available in two versions
- > Operation with battery / mains or aircraft supply

# Test Equipment RAT >PGRAT1<

## TECHNICAL DATA

### > Hydraulic parameter

Measuring circuit with loading throttle

High pressure filter with mechanic contamination indication, 6mic

Oil relief valve G 1/4"

### > Measurements

Flow measurement, digital  
1.3 - 40USgpm (5 - 150lpm) Cl.1.0

Temperature indicator, analog  
0 - 100°C Cl. 1.0

Pressure indicator, analog  
0 - 3600psi (0 - 250bar) Cl. 1.0

RAM-AIR pressure indicator, digital  
0 - 4000psi (0 - 275bar) Cl. 0.5

RAM-AIR speed indicator, digital  
0 - 9999rpm ± 2rpm

### > Standard accessories

Hose l = 157.5in (4.0m) with Aeroquip-Coupling with protective cap, (P/N AE 95074 N)

Hose l = 157.5in (4.0m) with Aeroquip-Coupling with protective cap (P/N AE 94186 P)

Supply and test cable <PKL 730-1> for RAM-AIR pressure- and speed indicator and 28 V DC A/C supply

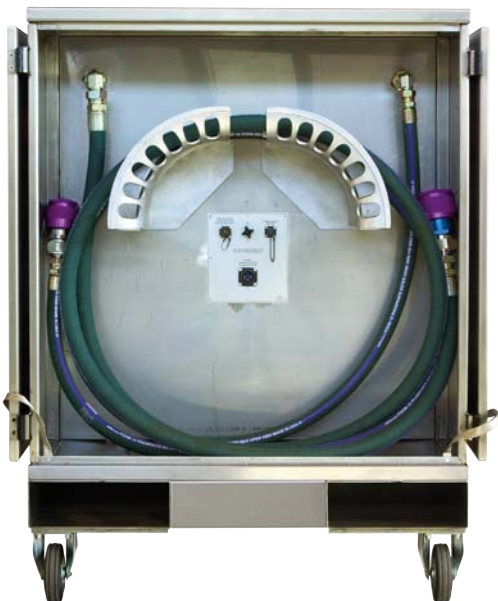
Supply cable <PKL 730-2> for 28 V DC A/C supply

Charging- and supply cable <PKL 730-3> for test equipment RAT (Range 90-260 V AC, 47 - 63Hz)

### > Dimensions and weight

Width: approx. 37.4in (950mm)  
Depth: approx. 33.5in (850mm)  
Height: approx. 48.4in (1230mm)  
Weight: approx. 540lb (245kg)net

Rear side



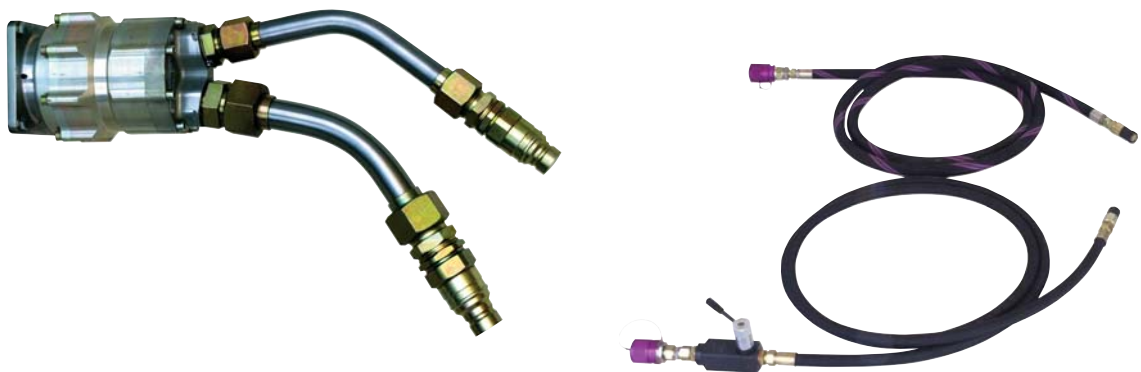
Control panel



## RAT-Motor for Ground Check >RATMK<

- > This ground check motor, driven by a hydraulic ground power unit is necessary to accomplish a functional test of the Ram Air Turbine (RAT).
- > Aluminium light-weight construction
- > Storage in the drawer of the test equipment RAT >PGRAT<

### Version 1: A 313165-1



### Version 2: A 313165-2



### Differences >RATMK< Version 1 and Version 2

- |            |   |
|------------|---|
| Version 1: | <ul style="list-style-type: none"><li>&gt; Supply and return hoses for the RAT-Motor are part of delivery</li><li>&gt; RAT-Motor is equipped with leak-free industrial couplings</li><li>&gt; Appropriate to the RAT-Motor one end of the hose is equipped with a leak-free industrial couplings, the other end is equipped with standard Aeroquip-couplings (AE 96997 M, AE 96996 P)</li><li>&gt; Supply hose with integrated flow regulator</li><li>&gt; Equivalent to RAT-Motor-Kit AGE 10600A</li></ul> |
| Version 2: | <ul style="list-style-type: none"><li>&gt; No hoses for RAT-Motor</li><li>&gt; RAT-Motor is equipped with standard Aeroquip-couplings (AE 96997 M, AE 96996 P)</li></ul>  |

## TECHNICAL DATA

<p><b>&gt; RAT-Motor, P/N GM 743 100</b></p> <p>Medium: Skydrol</p> <p>Absorption capacity: 3.5cb.in (22.30cm<sup>3</sup>/U)</p> <p>Rated pressure: 3000psi (210bar)</p> <p>Speed: 6000rpm</p> <p>Torque: ≥ 46Nm at 166bar Diff.</p> <p>Absorption current: max. 39gpm (148lpm)</p> <p>Max. speed: max. 6500rpm at min. 267lb/in (30Nm)</p> <p>Inlet temperature: -20 to +75C°</p> <p>Rotation: CW</p> <p>Min. load: ≥ 15Nm at 5000rpm</p> <p>Test pressure - static: Inlet 4500psi (310.3bar) Outlet and Housing 250psi (17.3bar)</p>		<p>RAT-Motor housing connections: Inlet and outlet MS 33649-12</p> <p>RAT-Motor-inlet: MS 33656-16</p> <p>RAT-Motor-outlet: MS 33656-20</p>
<p><b>&gt; Minimum performance data of the ground power unit</b></p> <p>▶ Version 1: Pressure: min. 3000psi (210bar) with pressure regulation Flow: min. 40USgpm (150lpm)</p> <p>▶ Version 2: Pressure: min. 3000psi (210bar) with pressure regulation Flow: min. 40USgpm (150lpm) with pressure regulation Connections: Supply hoses min. 236.2in (6m)</p>		

## STANDARD ACCESSORIES

<p><b>&gt; Version 1:</b></p> <p>Supply hose with integrated flow regulator, l = 236.2in (6m)</p> <p>Return hose, l = 236.2in (6m)</p> <p>Leak-free industrial coupling for connecting the RAT-Motor</p> <p>Inlet coupling with protective cap, Aeroquip P/N AE 96997 M</p> <p>Outlet coupling with protective cap, Aeroquip P/N AE 96996 P</p> <p>Transport case</p>	<p><b>&gt; Version 2:</b></p> <p>Rigid supply and return connections</p> <p>Inlet coupling with protective cap, Aeroquip, P/N AE 96997 M</p> <p>Outlet coupling with protective cap, Aeroquip, P/N AE 96996 P</p> <p>Transport case</p>
<p><b>Dimensions and weight</b></p> <p>Width : approx. 47.2in (1200mm)</p> <p>Depth: approx. 31.5in (800mm)</p> <p>Height: approx. 18.1in (460mm)</p> <p>Weight: approx. 86lb (39kg) (net, without transport case)</p>	<p><b>Dimensions and weight</b></p> <p>Width: approx. 27.6in (700mm)</p> <p>Depth: approx. 17.7in (450mm)</p> <p>Height: approx. 7.9in (200mm)</p> <p>Weight: approx. 26.5lb (12kg) (net, without transport case)</p>

# RAT Safety Interface Kit

## >RSIK1<



Developed to protect aircraft components from damage during RAT ground test. This damage could occur when the gasket (drive shaft seal) of the RAT Ground Check Motor fails.

The RAT Safety Interface Kit can be used in conjunction with all AIRBUS approved RAT Ground Check Motors.

- > AIRBUS approved - certificate-number: D29057
- > Intermediate flange suitable for every RAT Ground Check Motor product
- > Comes with detailed instructions
- > Scope of delivery includes rugged transport case

## TECHNICAL DATA

<p>&gt; <b>Medium:</b></p> <p>SKYDROL 500-B4, SKYDROL 5 and SKYDROL LD-4 HYJET IV-4A and HYJET V</p>	<p>&gt; <b>Operating conditions:</b></p> <p>Ambient temperature: -20 to +50°C (-4 to +122°F)</p> <p>Relative humidity: 50% at 40°C (104°F) at low temperatures higher relative humidities are permitted (e.g. 90% at 20°C (68°F))</p>
<p>&gt; <b>Dimensions and weight of the transport case:</b></p> <p>Length: approx. 470mm (18.5in) Width: approx. 420mm (16.5in) Height: approx. 220mm (8.7in) Weight: approx. 8.5kg (18.7lb)</p>	

## SCOPE OF DELIVERY

POS. NO.	PIECE	DESIGNATION	PART NUMBER (TKZ)	ORDER NUMBER (TAN)
1	1	<b>RAT SAFETY INTERFACE ADAPTER</b> consists of:	<GM1084014>	107502290
2	1 pc.	adapter plate with AN16 connecting screw	<M1094146>	107505399
3	1 pc.	adapter pinion	<M1064267>	107501874
4	4 pcs.	attachment screws	<M1082071>	107502288
5	4 pcs.	high beams	DIN 125A 8,4	107011318
6	4 pcs.	mounting nuts	<M1091019>	107503764
7	1	conducting hose	<GM1081029>	107504197
8	1	substitute - locking spring	<M771161>	107020566
9	1	transport case	<M1094145>	107505396



Technical data are subject to change!

## ACCESSORIES

DESIGNATION	PART NUMBER (TKZ)	ORDER NUMBER (TAN)
<b>COLLECTING BIN FOR RSIK1</b> serves as collecting bin for possible leakage of the RAT Safety Interface Kit >RSIK1<	>ABRSIK1<	150090444



## TYPE KEY

DESIGNATION	PART NUMBER
Test equipment for RAM-Air Turbines, consisting of: > Test equipment RAT >PGRAT1< and RAT-Motor >RATMK< Version 1	>PGRAT1-1<
Test equipment for RAM-Air Turbines, consisting of: > Test equipment RAT >PGRAT1< and RAT-Motor >RATMK< Version 2	>PGRAT1-2<
Test equipment for RAM-Air Turbines complete, consisting of: > Test equipment RAT >PGRAT1<, RAT-Motor >RATMK< Version 1 and RAT Safety Interface Kit >RSIK1<	>PGRAT1-1-RS<
Test equipment for RAM-Air Turbines complete, consisting of: > Test equipment RAT >PGRAT1<, RAT-Motor >RATMK< Version 2 and RAT Safety Interface Kit >RSIK1<	>PGRAT1-2-RS<