CLYDESDALE
Powering the Future

DATASHEET: CLY 740 3001 Super Jet

PLUMETT

1. General

The SuperJet is designed for placing telecommunication cables (optical fibre, coaxial or multipair) in preinstalled ducts. The SuperJet operates according to the "Jetting" or “Blowing” method that combines a mechanical pushing force and a high-speed air stream along the cable surface. Please consult us for any application not indicated above.
“Jetting” offers many advantages:

- Pushing Force loads are spread over the whole length of the cable, virtually eliminating cable damage experienced when pulling methods are used.
- Bends or undulations have a low influence on the jetting performance.
- Safe operation for personnel and equipment.
- Easy to operate
- Reduced infrastructure and manpower costs
- High daily production.

This results in, and allows the operator to:

- install very long single sections of cable up to 3000m
- place cables into their final location eliminating joints and reducing costs
- direct bury the protection duct into the ground without worrying about the route
- pull several sub-ducts simultaneously, without concern about twisting in the main duct
- secure a quasi constant daily installation capacity whatever the complexity of the duct run
- remove a cable from a duct and replace it by another one in one operation.

2. Field of application

The SuperJet operates within following recommended conditions:

- Cables: diameter between 14* and 32*mm

The adaptation to different cable diameters is secured by a set of interchangeable cable inserts in the following cable diameters: Ø 14-15,5 ; 15,5-18 ; 17,5-22 ; 22-24 ; 24-28 and 28-32 mm.

- Ducts: outer diameter between **25** and **63** mm

The adaptation to different duct diameters is secured by a set of interchangeable duct inserts in the following outside diameters: Ø **25**, **32**, **34**, **37**, **40**, **42**, **48**, **50**, **60** and **63** mm.

***** To jet cables with a diameter ranging from 9 to 14 mm and from 32 to 36 mm, requires specific precautions when using a SuperJet, please consult us.
The duct and cable inserts for the air inlet chamber are red and grey coloured, anodized, aluminium alloy components.

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3. The pusher (cable feeder)
A feeder fitted with 2 chains with a synthetic rubber lining pushes the cable, driven by 2 hydraulic motors. The linear pressure exerted by the chain, on the cable, is pre-selected and kept constant by a spring mechanism, thus preventing any crushing of the cable.
- Single Direction only
- Maximum pushing force 60 bar
- Hydraulic pressure on the motors 60daN
- Maximum linear pressure exerted on the cable 9.4 daN/cm
- Adjustable speed 0-60 m/min
- Recommended speed 40 m/min

The speed of the pusher is controlled by a by-pass valve coupled to the hydraulic hoses connecting the power pack to the motors of the SuperJet.

4. The hydraulic power pack
The power pack is driven by a petrol engine (Honda GXV 160 4 Stroke air colled) fitted on the hydraulic oil tank. The power pack has the following characteristics:
- Rewind start
- Cubic capacity: **163** cm3
- Maximum power : **4,1** kW (5,5 HP)
- Speed: **3600** min-1
- Sound level: **85** dB at 7 m and 3600min-1
- Cylinder capacity of the gear pump: **3,8** cm3
- Delivery rating: **12,5** l/min
- Hydraulic pressure: **60** bar
- Oil tank capacity: **27** l
- Required oil quality ISO VG 46-HVI (ISO 48)

5. Compressed air supply
Each SuperJet must necessarily be supplied with air by a compressor having the following characteristics:
- Nominal pressure : **8**-**12** bar
- Minimum delivery :

for ducts up to 27 mm external Ø: **4** m3/min
for ducts up to 32 mm external Ø: **5** m3/min
for ducts up to 40 mm external Ø: **7** m3/min
for ducts up to 50 mm external Ø : **10** m3/min
for ducts up to 63 mm external Ø: **15** m3/min
For safety reasons, compressors with a nominal pressure of over 12 bar should be equipped with a device limiting this pressure to 12 bar.
If ambient temperatures are over 25 °C, it is highly recommended to use an air Aftercooler.

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6. Dimensions and weights
SuperJet only: l 900 x w 345 x h 350 mm Weight: **35** kg
SuperJet with steel box: l 960 x w 370 x h 435 mm Weight: **50** kg
Tools and accessories case: l 550 x w 350 x h 250 mm Weight: **17** kg
Hydraulic power pack: l 550 x w 330 x h 600 mm Weight (with oil):**65** kg

7. Compliance to regulations
Specific acoustic emission at the work station: L^{pA} = 77 dB(A)
Designed in accordance with EC Directive for Machinery No 89/392/CEE and annexes.

8. Standard equipment
Each hydraulic SuperJet is supplied as a kit including the following:
- A steel box for the SuperJet
- A case containing tools, inserts wear parts and consumables (seals, lubricants, etc.)
- 3 duct inserts with outer Ø : 32, 40, 50 mm
- 4 cable inserts: Ø 15,5-18 ; Ø 17,5-22 ; Ø 22-24 ; Ø 24-28 mm
- 10 m 1 1/2" air hose with couplers and ball valve.
- a speed and length measuring device
- an exhaust chimney
- a hydraulic power pack, 60 bar
- 2 x 4 m flexible hydraulic hoses with by-pass valve
- a user's and maintenance manual
- spare parts list.

9. Optional accessories
Intermediate cable storage device FIGARO
Air Aftercooler AHP 400 with water separator
Sonic heads for duct inner diameters within 26-32; 32-40 and 40-51 mm
Y connector
Duct inserts (others than the 3 included in the standard equipment): Ø 25, 34, 37, 42, 48, 60, 63 mm
Cable insert Ø 14-15,5; 28-32 mm
Cable inserts Ø 9-11; 11-12,5; 12,5-14 and 32-36 mm can be used with specific precautions
Lubricant foam spreaders Ø 60, 80 and 100 mm
"Jetting Lube" duct lubricant (box of12 bottles of 95 CL each)
Hydraulic power pack, 140 bar (for limited application with cables > Ø 25 mm)
Fixing clamps for struts Ø 48 and 60 mm
Calibrating equipment for ducts
Special connectors for ducts
Kit for measuring coefficients of friction and stiffness
"JETPLANNER" calculation software for maximum installation lengths.

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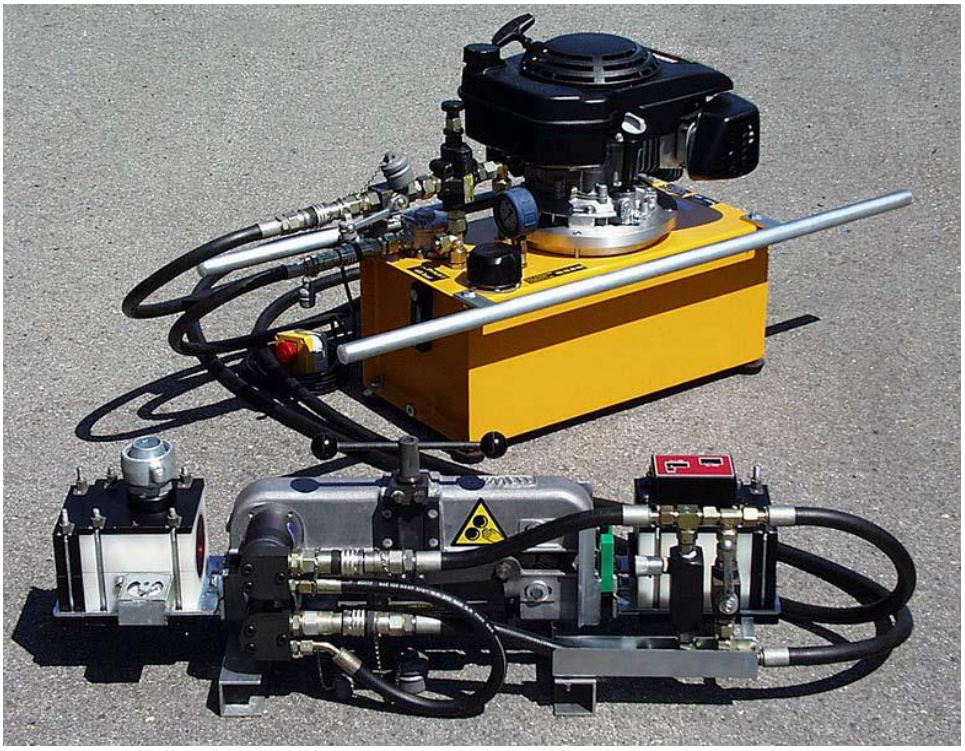

SuperJet, shown in standard configuration

Figaro, Intermediate Cable Fleeting Device. Used to increase installation distance and manage cables more efficiently. For further details please request Technical Data Sheet – Figaro.

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