



Glass & Plastic Decoration Systems.

Growing ideas, growing results.

Reinvent. Always.



280+

Customers around the world

55

Countries

Fermac dedicated to glass container decoration for 30 years innovation, high quality mechanics, performance in automation, after sales assistance

FERMAC founded in 1993, designs, manufactures and installs decoration equipment for glass, plastic and ceramic containers with the following process: screen printing, inkjet printing and hot foil stamping on a wide range of packaging. The ideas, ethics and high care for the customer's service have brought the company in the leading position on the market.

Glass & Plastic Decoration Systems.

Available in thermoplastic, UV, UV Led, digital and hybrid technology

Flex Series

Modular glass printing systems



F1800N



F3000N



F4200N

CLxx

Special concept for compact CNC decorating modules



CL01 | CL02 | CL04



CL04 | CL05



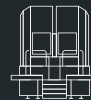
CL06

Rotary Series

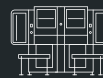
High End decoration machines



RUV Series



Fxx Series



Fxx JetArt

Mxx

Semiautomatic decoration systems



M42 | M62

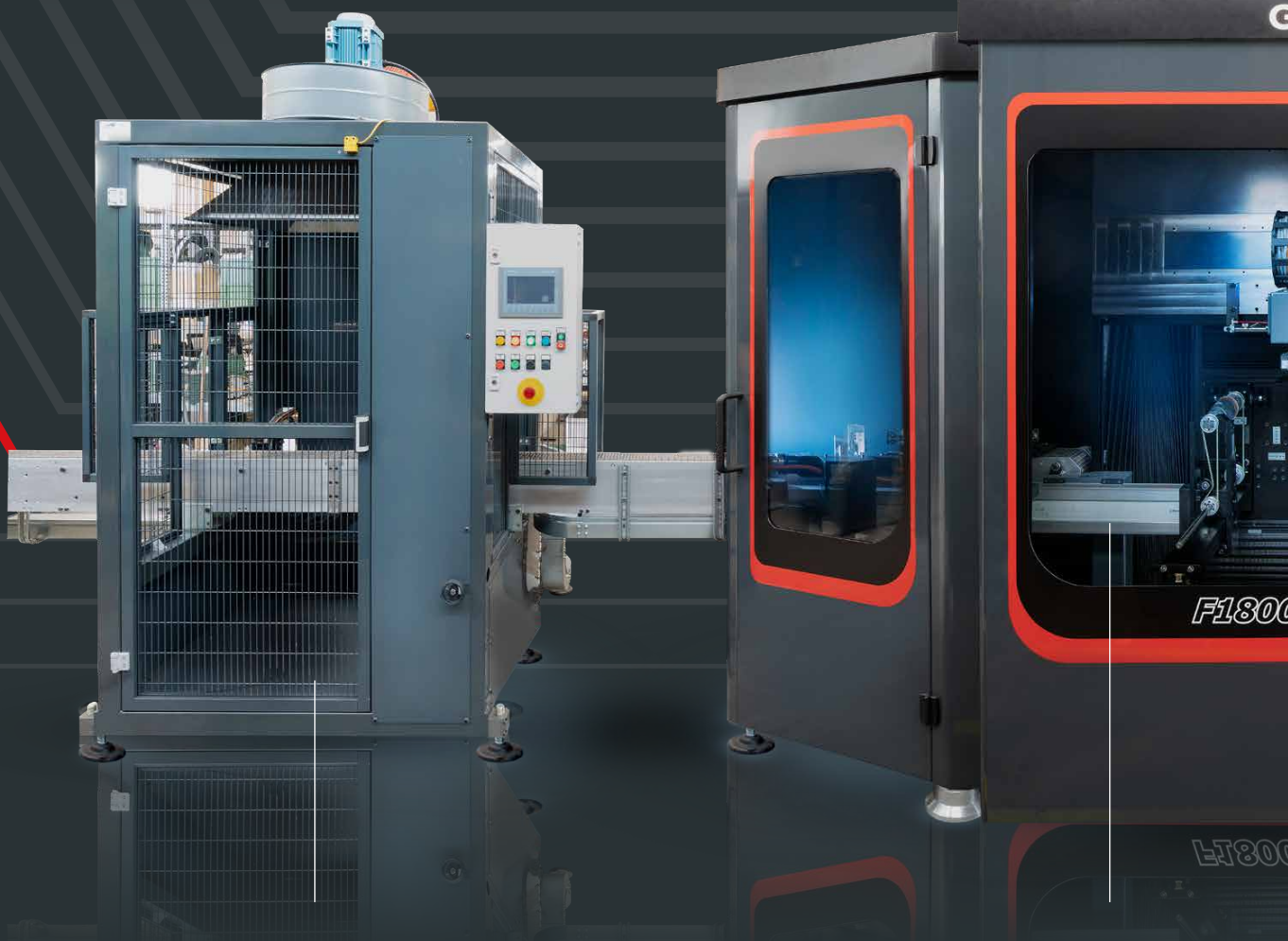
1000+

Systems installed



FLEX

Reinvent. Always.



Pretreatment Unit

Single or dual object handling

The new Flex line has been developed to answer customer need for high flexibility and versatility machines. This platform enables our customers to penetrate new markets thanks to the ability of perform short-run and complex printing. Thanks to the CMYK unique capabilities it is also possible to find new interesting niches and unexplored commercial opportunities. The Flex range comes from more than 30 years of experience in the field of glass decoration systems.

GLASS DECORATION SYSTEM



FERMAC
DIGITAL PRINTING TECHNOLOGIES



New ergonomical access
with sliding front doors panels

New HMI mobile panel

FLEX

when it comes to flexibility



FLAT



CYLINDRICAL



ELLIPTICAL



CONICAL

FLEX

MODULAR TECHNOLOGY FOR FUTURE PROOF SYSTEMS.

This range has been designed on a linear concept. Our users are free to shape their own decoration system based on their specific needs. This is made possible thanks to a modular approach, that not only permits great configuration possibilities, but also to upgrade the machine with future improvements.



Horizontal stroke mm

1800

Horizontal stroke for object holder

Horizontal stroke mm

3000

Horizontal stroke for object holder

Horizontal stroke mm

4200

Horizontal stroke for object holder

Max colours

3

Max colours

5

Max colours

8

Output max pcs/min

15

With single object holder

Output max pcs/min

10

With single object holder

Output max pcs/min

5

With single object holder

Overall size mm

4500 x 1800 x 2200

W x L x H

Overall size mm

5700 x 1800 x 2200

W x L x H

Overall size mm

6900 x 1800 x 2200

W x L x H



FERMAC MODULAR
CONCEPT

Three chassis are available in order to host different working station or options. Depending on any specific production need you can chose from 1800 up to 4200 mm of horizontal stroke of object holder carriage. See all the modules and options above

BECOME A DIGITAL CMYK NINJA

Entering the world of CMYK printing on glass (and other materials) is the gateway to enter new markets. Radically new printing services, even short-run or test productions, can be carried out in just minutes and complements more traditional decoration process that can be performed, depending on the choosen configuration, by a FLEX machine itself. The R.I.P. *Raster Image Processor*, features data driven workflows in order to print variable data for and unlimited range of printing works.



Shades of colour

16.7m million of colours

Thanks to CMYK it is possible to print all colour shades of a 24bit RGB image

DPI

360/720

High resolution for ideal image rendition

Variable data



Customized list of data for creating unique pieces

PHOTO QUALITY

CMYK printing allows perfect reproduction of continuous tone photographic images



...PLUS WHITE

White, as additional under colour printing, permits great flexibility both for creative and technical purposes



3D EMBOSSING

A 3D embossing effect is achievable by overlapping top coat varnish layers



CLXX

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Matrix or linear camera for angular positioning or quality control

Module with double station



The CL lines has been developped to offer some very performant decorating module on a linear concept where the customer is free to create his customized printing center.



Servo driven with tilting device for any process

CL : Modular line for shape items

CL when it comes to flexibility



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CLXX

MODULAR TECHNOLOGY FOR FUTURE PROOF SYSTEMS.

This range offers the possibility to combine different module according to the needs. The aim is to optimize the size of the equipment and the tooling in order to achieve the best ratio: *cost-space-change over*.



FERMAC
MODULAR
CONCEPT

MODULAR CHASSIS SYSTEM

CL01



Up to 2 colour with ceramic or 1 x UV colour, very high accuracy in colour registration

Output up to $40 \frac{\text{pcs}}{\text{min}}$

in 1 colour ceramic and 20 p/min with 2 colours ceramic or 1 x UV colour

CL02



2 colour ceramic and 1 x UV colour

Output up to $40 \frac{\text{pcs}}{\text{min}}$

in 2 colour ceramic or 1 x UV colour.

CL03



2 colour ceramic and 1 x UV colour. Same specification as CL02 but with additional station for camera for angular positioning

Output up to $40 \frac{\text{pcs}}{\text{min}}$

in 2 colour ceramic or 1 x UV colour.

CL04



4 x working stations for 4 x colours ceramic or 2 x UV inks

Output up to $40 \frac{\text{pcs}}{\text{min}}$

2 colour ceramic or 1 x UV colour.

CL05



Same specification as CL04 but with additional station for camera for angular positioning

Output up to $40 \frac{\text{pcs}}{\text{min}}$

in 2 colour ceramic or 1 x UV colour.

CL06



Same as CL05 with additional station for quality control.

Output up to $40 \frac{\text{pcs}}{\text{min}}$

in 2 colour ceramic or 1 x UV colour.



There are different module type from CL01 with single object holder up to CL06 with 6 x object holder. Various combination are possible according to your needs.

UP TO 70 PCS/MIN WITH
DC²
 super fast printing machine
 for nail polish bottles



Double object holder for small items using thermoplastic ceramic process



Item dimension

40mm

Maximum diameter 40 mm

Item Height

140mm

Maximum height for the item

Maximum output

70 $\frac{\text{pcs}}{\text{min}}$

35 p/min single production and 70 p/min 2 colours

This machine is CNC driven which means able to print any developable shape item and can be converted in single production when 2 x ceramic or 1 X UV colour are needed.



DOUBLE OBJECT HOLDER



MECHANICAL ANGULAR REGISTRATION



SINGLE COLOUR PRINTING FOR SMALL BOTTLES

RUV

Reinvent. Always.

Linear camera for quality control can be installed on the last station before unloading

Our rotary base version are available from 6 up to 22 stations in MOTION or CNC concept
According to the needs, we can define the configuration in order to host:
decorating or UV curing stations

FERMAC can study any integration on existing line to design the outfeed conveyor and realize push bar and stacker for loading the lehr or connect to palletizing



F



Matrix camera or linear camera for angular positionign can be installed on the loading station

Loading system with different stepping unit:

- Star wheel, leadless screw or oval conveyor with jig.
- Special pre treatment can be integrated while printing with UV inks.

ROTARY

Glass Decoration Systems



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MODULAR TECHNOLOGY FOR FUTURE PROOF SYSTEMS.

On all our rotary base machine, we have a servo driven indexing system with very high speed and extreme accuracy on stopping phase. According to the type of item: cylindrical or shaped, we can choose a Motion or CNC servo driven concept to move the item.

MODULAR CHASSIS SYSTEM

RUV MOTION CONTROL



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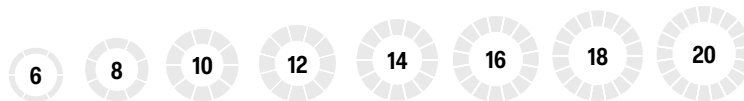


CYLINDRICAL



CONICAL

Number of stations



OR



F CNC CONTROL



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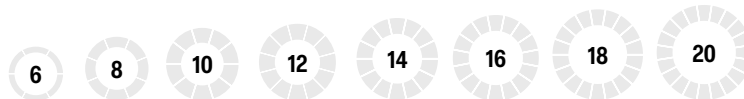


ELLIPTICAL



CONICAL

Number of stations



FERMAC
MODULAR
CONCEPT

On RUV (*Motion system*), the item is fixed on the rotary disk and is moving only horizontal. On FXX (*CNC servo driven system*), the item is moving up and down as well. Squeegee has an horizontal movement for the follow up of shaped profile.

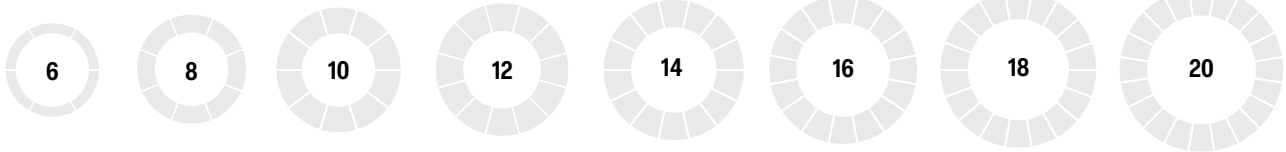
TECHNICAL DATA

RUVxx

Fxx

Fxx JetArt

RUV DP



Cinematic

Cinematic

Cinematic

Cinematic

Motion

CNC

CNC

Motion

Max speed

Max speed

Max speed

Max speed

100 $\frac{\text{pcs}}{\text{min}}$

85 $\frac{\text{pcs}}{\text{min}}$

60 $\frac{\text{pcs}}{\text{min}}$

190 $\frac{\text{pcs}}{\text{min}}$

Possible head config.

Possible head config.

Possible head config.

Possible head config.

Ceramic
UV inks
UV led
Hot foil stamping

Ceramic
UV inks
UV led
Hot foil stamping

Inkjet

Ceramic
UV inks



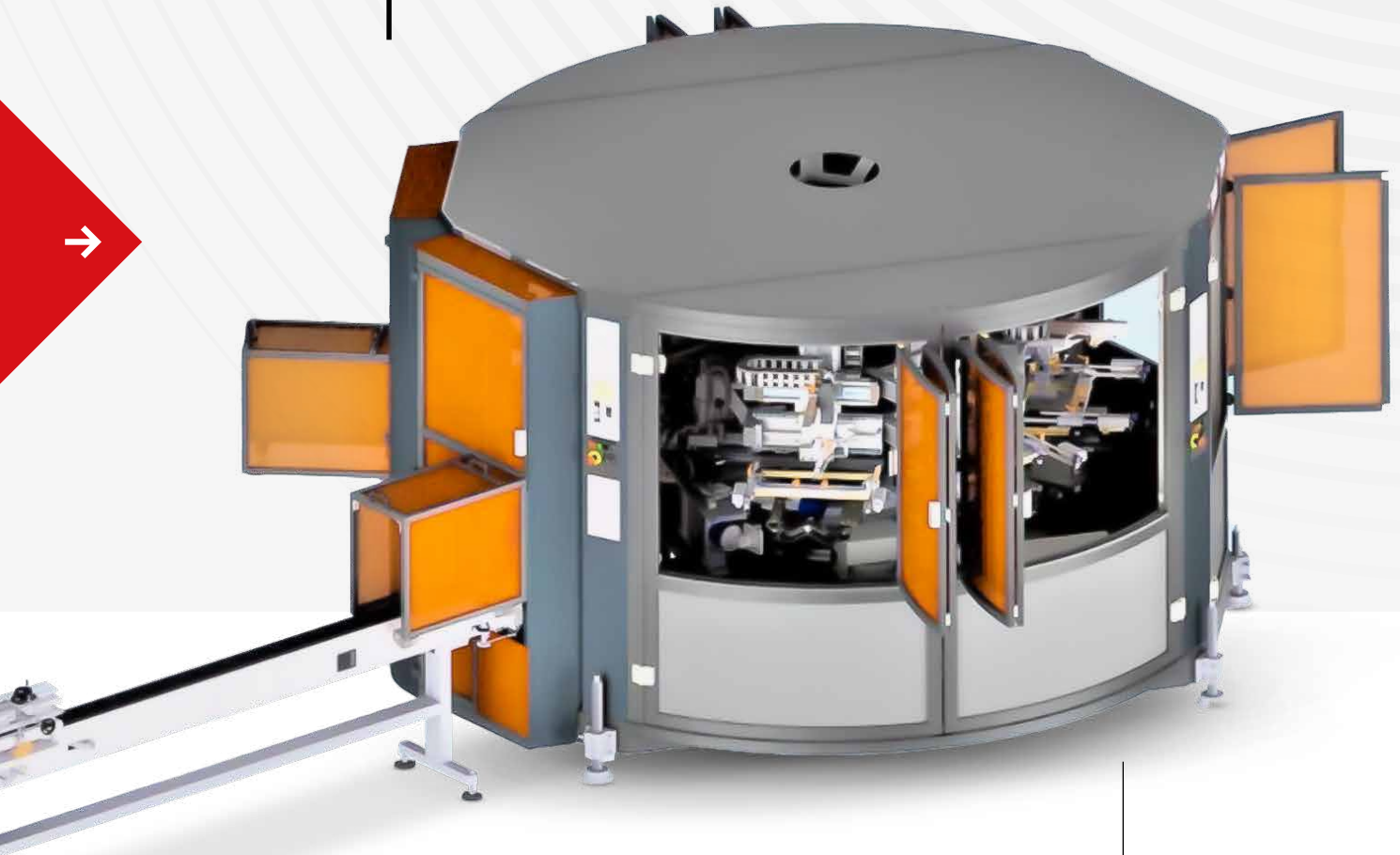
On both version, we can install on the loading conveyor the special pre treatment with *pyrosil* and double half ring burner

THE NEW GENERATION FXXS SERIES

FLEXIBILITY
+ACCURACY



Based on "FXX" roots, this is a new generation machine, specifically developed for the decoration on cosmetics and perfume containers (*either glass or plastic*); with a new loading/unloading system, a deep reorganization of all the mechanical parts to improve the access and for a faster and user-friendlier changeover.



FXXS machines are built platform-free to keep the machine on a safe work level.

Available for ceramic colours, UV lamp or UV LED and configurable with a wide range of accessories such as: Robots for Positioning; Pretreatment System with Pyrosil (for UV lamp/led); Flaming Module on board; Antistatic Treatment module onboard (for plastic items); Cameras for Registration on bottom & body; Camera for Quality Inspection; Hot-Foil Stamping module onboard & in line (all the accessories are available as upgrade also later).

Maximum
production speed

85 pcs

FXJETART LINE

Platform is the ideal model to receive the inkjet process because of the vertical movement of the item which can optimize the distance between object surface and nozzle plate from the printhead.



UVTREAT special pre treatment with pyrosil applied by double half ring burner.



All options are available: matrix or linear camera, quality control with linear camera.

3D Embossing Effect [Optional]

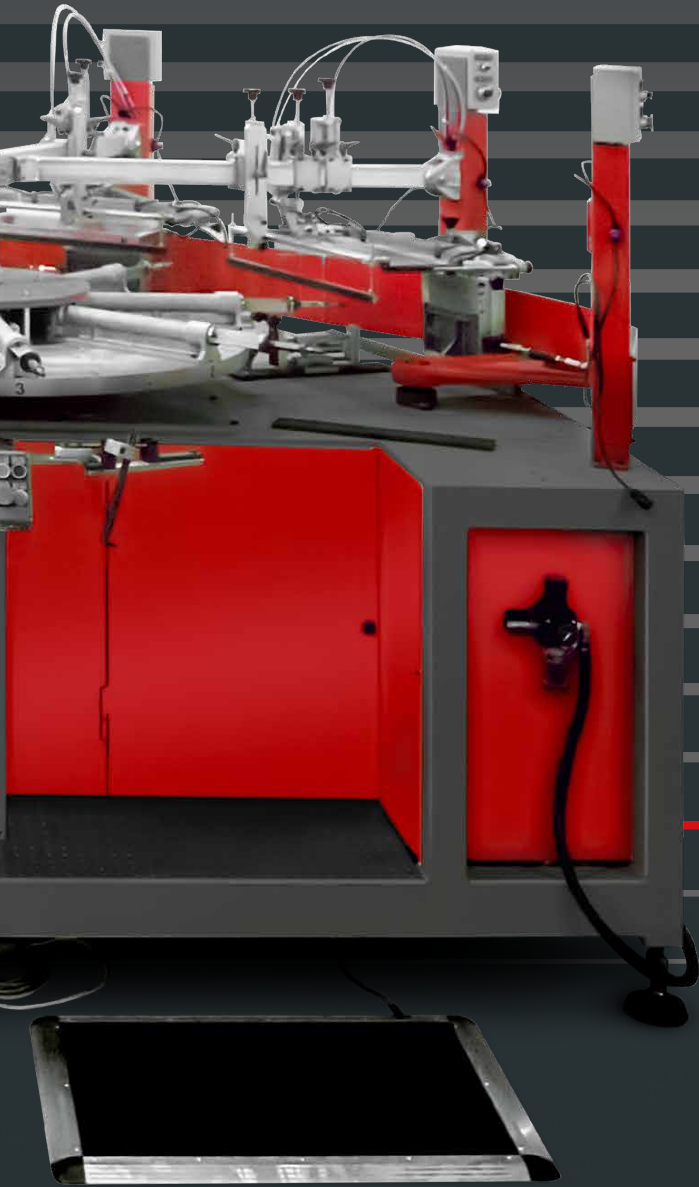
It is possible to combine UV screen printing station in addition to the digital process on versions F16, F18 or F20 or add several Topcoat printhead to realize 3D embossing effect

Mxx

Semiautomatic.



The M lines have been developed to offer a reliable thus very easy to use platform for small decoration companies, or to complement existing decoration systems with an efficient semiautomatic solution.



M when it comes to simplicity



FLAT



CYLINDRICAL



ELLIPTICAL



CONICAL

SEMI-AUTOMATIC 4 COLOUR MACHINE

M42

SERIES

Semi-automatic machine for decorating glasses and bottle (only on body) with up to 4 colours and with a maximum production speed of 55 psc/min.

Maximum production speed

55 $\frac{\text{psc}}{\text{min}}$



FLEXIBILITY
+ ACCURACY



The M42 machine was conceived to satisfy the needs of small decorating compnies that require versatility and ease of use- The machine is simple and immediately allows to reach a good level of quality. The M42 is equipped with the same devices used in the bigger machines, appreiated for accuracy and reliability.

Weight

2000 $\overline{\text{Kg}}$

Ware diameter
for 360° printing (min/max)

30/120 $\overline{\text{mm}}$

Maximum
ware height

350 $\overline{\text{mm}}$

Consumption

Total Connected Load

Compressed air consumption (at 6 bar pressure)

Vacuum suction (400-500 mm Hg)

10 KW

13 Nmc/h

15 m³/h

SEMI-AUTOMATIC 6 COLOUR MACHINE

M62

SERIES

Semi-automatic machine for decorating glasses and bottle (only on body) with up to 6 colours and with a maximum production speed of 55 psc/min.



The M62 machine was conceived to satisfy the needs of small decorating companies that require versatility and ease of use- The machine is simple and immediately allows to reach a good level of quality. The M62 is equipped with the same devices used in the bigger machines, appreciated for accuracy and reliability.

Maximum production speed

55 $\frac{\text{psc}}{\text{min}}$

Available versions

M62/4

4 colours manual
(2 operators for loading/unloading)

M62/4 SA

4 colours manual
(1 operator for loading/unloading)

M62/6

6 colours manual
(2 operators for loading/unloading)

M62/6 SA

6 colours manual
(1 operator for loading/unloading)

Weight

3200 $\frac{\text{Kg}}$

Ware diameter for 360° printing (min/max)

30/120 $\frac{\text{mm}}$

Maximum ware height

350 $\frac{\text{mm}}$

Consumption

Total Connected Load

12 KW

Compressed air consumption (at 6 bar pressure)

15 Nmc/h

Vacuum suction (400-500 mm Hg)

15 m³/h



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