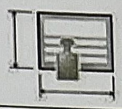


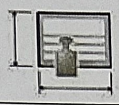
Flame treatment unit:

Type:	EF 75-1 FU
Manufacturer:	Hill
Burner:	T226-300
Mixture supply feed:	HFL DN 25 x 7 m, 1“
Thermal output:	max. 50 kW
Gas supply:	Propane, 50 mbar, max. 5 kg/h natural gas, max. 5.2 m^3/h
Power supply:	400 / 230 V / 50 Hz, supply tolerance -15 / + 10 %
Electrical power rating:	1500 VA
Automatic stoker:	IFS 110 IM–5/1/1
Start-up safety time:	5 s
Dimensions (W x H x D):	1200 x 1180 x 480/400 mm
Electrical connections:	Profibus plug-in connector Ignition and monitoring cable with earth cable to earth the burner
Mechanical connections:	3/4” internal thread ball valve for gas Conically sealing threaded connection with 1“ Rp Internal thread to connect the burner
Weight of the burner control:	172 kg
Floor space for floor assembly:	1200 x 400 mm

The device is designed for surface treatment in industrial manufacturing facilities. Use for other applications such as space heating, heating food, soldering work etc. is not permitted.

Attention

The maximum permissible connection pressure of the gas supply is 100 mbar. Higher pressures may destroy the device!



Couplings and connections

The necessary parts lists, diagrams and operating manuals from our suppliers are in the Chapter 10.

Noise emissions

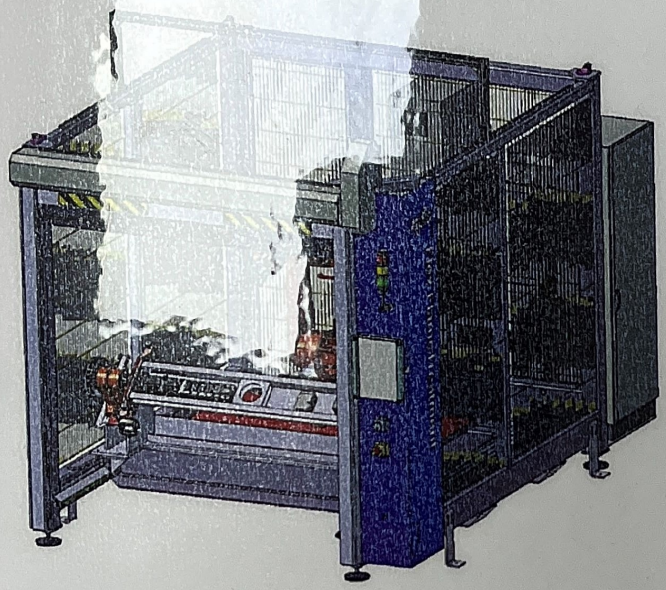
The noises caused by the flame treatment unit during operation of the machine are below the value of 70 dB(A) required under the currently valid EC Machinery Directive.

No protective measures are therefore required for the installation.

However, note that motions/functions in conjunction with the flame treatment unit may cause a higher sound pressure level and can lead to hearing loss. This can be exacerbated by operation of the flame treatment unit in a workshop together with other machines.

The operating company is obliged to check this and, if necessary, to order personal protective equipment (ear protection) to be worn.

Operating manual



FLAME TREATMENT UNIT

with

PRODUCT FIXTURES

for

HONDA 2WS / 2KC

INSTRUMENT PANEL LHD / RHD

Order No.: L.22888.07 / L.22888.08 / L.22888.09

Customer / Factory

DJK Europe GmbH

FRIMO Lotte GmbH

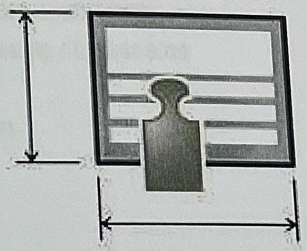
Hansaring 1
49504 Lotte, Germany

Tel. +49 (0)5404 / 886-0
Fax +49 (0)5404 / 886-187

http://www.frimo.com

(Translation of the Original Operating Manual)

8 Technical Data



General information:

Machine type/ model designation:	**FLAME TREATMENT UNIT with PRODUCT FIXTURES for HONDA 2WS / 2KC INSTRUMENT PANEL LHD / RHD**
Order number:	**L.22888.07 / L.22888.08 / L.22888.09**
Year of construction:	**2012**
Manufacturer:	**FRIMO Lotte GmbH**
Layout: KPL FLAME TREATMENT UNIT	L68012
Layout: CPL COMBI SUPPORT 2KC IP	L68280
Layout: CPL COMBI SUPPORT 2WS IP	L68658
Wiring diagram: Flame treatment unit	EANL0087
Pneumatics diagram:	L69692

Flame treatment unit installation surface:

Max. width:	Approx. 2730 mm
Max. depth:	Approx. 3750 mm
Max. height:	Approx. 3050 mm

Product fixture 2KC instrument panel dimensions:

Max. width:	Approx. 1570 mm
Max. depth:	Approx. 800 mm
Max. height:	Approx. 520 mm

Product fixture 2WS instrument panel dimensions:

Max. width:	Approx. 1570 mm
Max. depth:	Approx. 750 mm
Max. height:	Approx. 440 mm

Flame treatment unit transport shoes:

Dimensions:	Rectangular tube 250 mm x 100 mm x 5 mm
Spacing (dimension for centre of transport shoe)	Approx. 1000 mm

Weight:

Flame treatment unit:	Approx. 3200 kg

Connected loads:

Supply voltage:	3 x 400 V AC / N / PE
Frequency:	50 Hz
Control voltage:	24 V DC
Connected load:	30 kW
Rated current:	50 A
Compressed air:	6 – 12 bar, 50 l/min
	clean, dry, oil-free
Gas:	5 kg/h

Robot:

Type:	IRB 2600 / 20 kg / 1,65 m - M2004
Manufacturer:	ABB
Payload:	20 kg
Reach:	1.65 m
Protection type / version:	Standard, IP 67
Supplementary load Arm:	10 kg
Number of axes:	6
Supply voltage	200 – 600 V, 50 / 60 Hz
Dimensions robot base	676 x 511 x 1382 mm
Weight:	272 - 284 kg

Power:

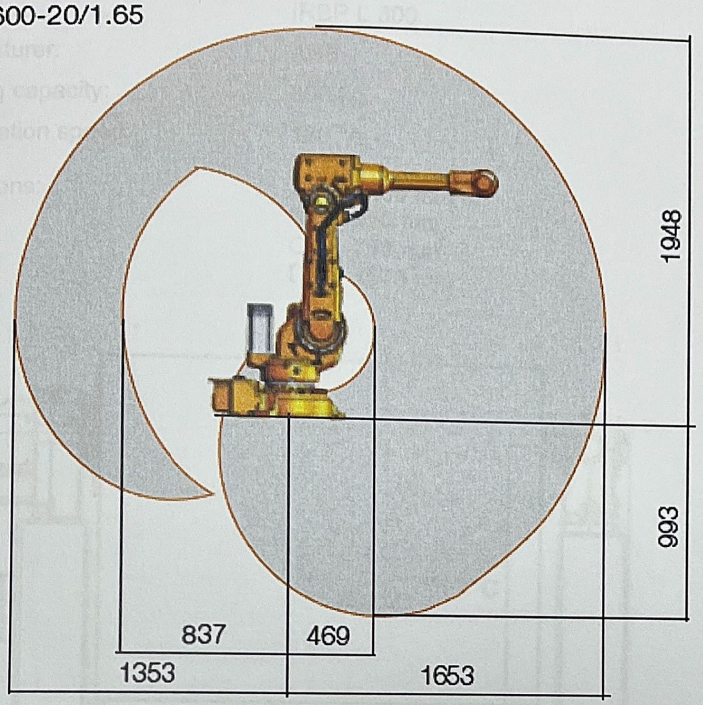
Position repeatability:	0.04 mm
Path repeatability:	0.13 mm
Max. axis speed:	
Axis 1	175 °/s
Axis 2	175 °/s
Axis 3	175 °/s
Axis 4	360 °/s
Axis 5	360 °/s
Axis 6	360 °/s
Working range:	
Axis 1	+180° to -180°
Axis 2	+155° to -95°
Axis 3	+75° to -180°
Axis 4	+400° to -400°
Axis 5	+120° to -120°
Axis 6	+400° to -400°

Operating conditions:

Ambient temperature (during operation):	+5 °C to +45 °C
During transportation and storage:	-25 °C bis +55 °C
Relative humidity:	max. 95 % (at constant temperature)
Emission:	EMC / EMI-shielded

Working range:

IRB 2600-20/1.65

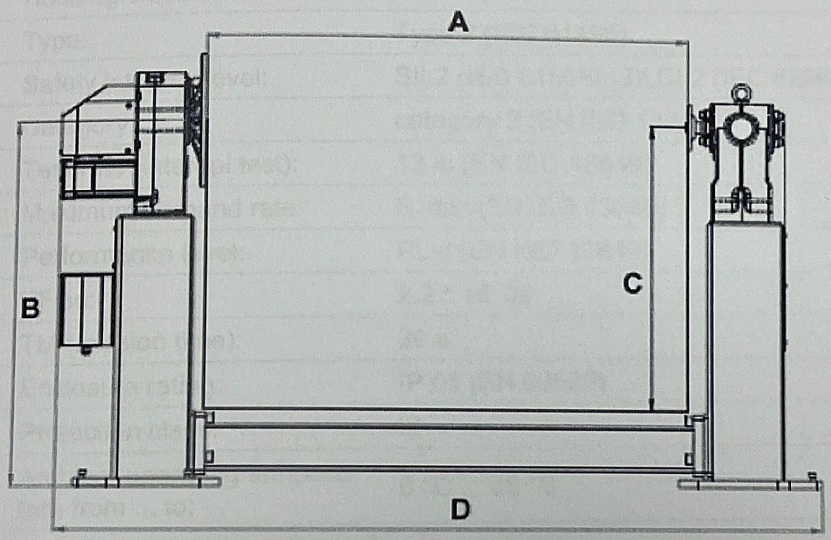


Positioner:

Type:	IRBP L 300
Manufacturer:	ABB
Handling capacity:	300 kg
Max. rotation speed:	180 °/s

Dimensions:

A	1250 mm
B	950 mm
C	750 mm
D	1979 mm



Sick safety light curtains:

Type: C20S-060104A11

Manufacturer: Sick

Transmitter: 1016576

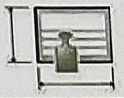
Technical Data-Sender

Protective field height:	600 mm
Resolution:	40 mm
Scanning range from ... to:	0 m ... 6 m
Housing cross-section:	34 mm x 29 mm
Type:	Type 2 (IEC 61496)
Safety integrity level:	SIL2 (IEC 61508), SILCL2 (IEC 62061)
Category:	category 2 (EN ISO 13849)
Test rate (internal test):	13 /s (EN ISO 13849)
Maximum demand rate:	8 /min (EN ISO 13849) [1)]
Performance level:	PL d (EN ISO 13849)
PFHd:	2.2 * 1E-08
TM (mission time):	20 a
Enclosure rating:	IP 65 (EN 60529)
Protection class:	III
Ambient operating temperature from ... to:	0 °C ... 55 °C
Vibration resistance (checked to):	5 g (IEC 68-2-6)
Oscillation frequency from ... to:	10 Hz ... 55 Hz
Shock resistance:	10 g, 16 ms (IEC 68-2-29)
Weight:	0.65 kg
Supply voltage typical, from, to:	24 V DC, 19.2 V DC, 28.8 V DC
Maximum power consumption:	6.2 W
Wave length:	950 nm
System connection:	plug M12 x 8
Maximum connection cable cross-section:	0.25 mm^2

Type:	C20E-060304A11
Manufacturer:	Sick
Receiver:	1016577

Technical Data-Receiver

Protective field height:	600 mm
Resolution:	40 mm
Housing cross-section:	34 mm x 29 mm
Type:	Type 2 (IEC 61496)
Safety integrity level:	SIL2 (IEC 61508), SILCL2 (IEC 62061)
Category:	category 2 (EN ISO 13849)
Test rate (internal test):	13 /s (EN ISO 13849)
Maximum demand rate:	8 /min (EN ISO 13849) [1)]
Performance level:	PL d (EN ISO 13849)
PFHd:	2.2 * 1E-08
TM (mission time):	20 a
Enclosure rating:	IP 65 (EN 60529)
Protection class:	III
Ambient operating temperature from ... to:	0 °C ... 55 °C
Vibration resistance (checked to):	5 g (IEC 68-2-6)
Oscillation frequency from ... to:	10 Hz ... 55 Hz
Shock resistance:	10 g, 16 ms (IEC 68-2-29)
Weight:	0.65 kg
Response time:	9.5 ms
Supply voltage typical, from, to:	24 V DC, 19.2 V DC, 28.8 V DC
Maximum power consumption:	8 W
Maximum switching voltage:	min. VS - 2.25 V DC
Maximum switching current:	500 mA
Wave length:	950 nm
System connection:	plug M12 x 8
Maximum connection cable cross-section:	0.25 mm²



Roller door:

Type:	RapidProtect RP300
Manufacturer:	Albany
Clear door height:	2.020 mm
Clear door width:	1.980 mm
Door control unit:	MCC VectorControl with frequency converter for dynamic door operation with quiet running performance
Opening speed:	max. 2.3 m/s
Closing speed:	max. 1.4 m/s
Side parts:	Aluminium
Door curtain:	RollTex Plus, grey fabric material
Power supply:	400 V 3-phase
Main frequency:	50 Hz
Motor output:	0,75 kW
Control voltage:	24 V DC
Protection type:	IP 55
Limit switch:	1x, Schmersal, SRB 301MC safety monitoring module
Miscellaneous:	stationary light curtain in side housing to monitor the closing plane
Control unit attachment:	near the door
Control side:	right
Drive side:	right