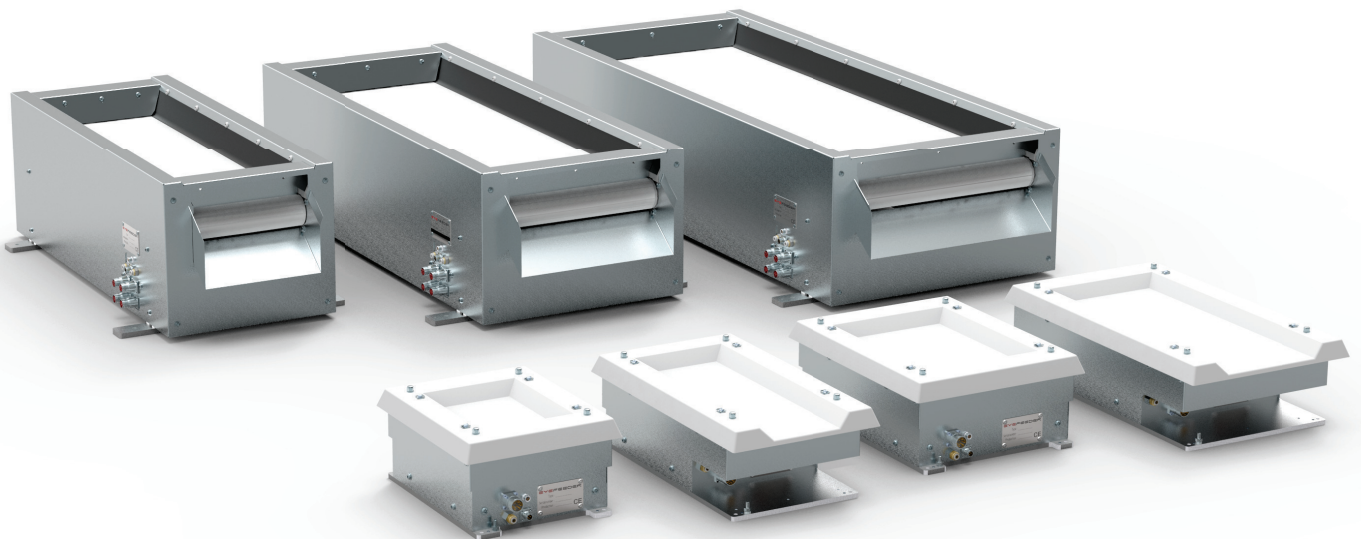


EYEFEEEDER[®]
the intelligent flexible feeder

PRODUCT OVERVIEW



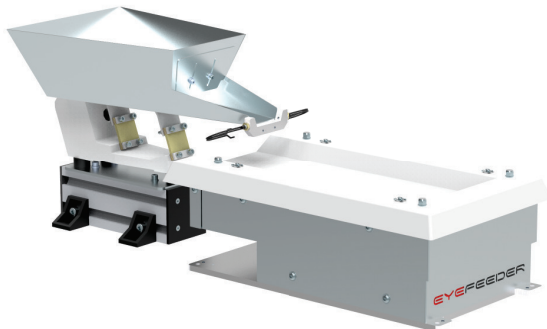
A full range...

EYEFEEEDER SYSTEM:

The system consists of an EYEFEEEDER®, a vision system and a robot. Products are fed from a lift conveyor or a bulk feeder on the belt / surface of the EYEFEEEDER®. The shaking system of the EYEFEEEDER spreads or turns the products in the detection range of the vision system. The vision system detects well positioned products and passes the coordinates of those to the robot that picks the products and places when necessary with high precision. If there are not enough well-positioned products the vision system gives the EYEFEEEDER® the command to shake / spread. If there are no or few products, the vision system gives the bulk feeder to supply new products.

EYEFEEEDER®:

The EYEFEEEDER® is a patented flexible feeder based conveyor belt with a shake system both driven by servomotors. Belt speed, shake-intensity and shake-patterns are easy to set on the DENSO Teaching Pendant which allows a quick product change. The software and hardware (controller / drivers / servomotors) are fully integrated in the DENSO robot controller which makes additional drivers, PLC's or IPC's unnecessary. The EYEFEEEDER® is available in three sizes (800 / 1000 / 1200) and can be equipped with different belt types or with backlight to facilitate easier detection.



VISION SYSTEM:

Depending on the kind of product to be handled, any kind of vision system can be used. It can be connected to the DENSO robot controller via Ethernet. The DENSO robot controller has libraries (providers) of different vision system manufacturers standard available. This allows an easy communication setup via TCP/IP and commands are mutually defined in a protocol which reduced programming time significantly. The vision system can be displayed via the DENSO Teaching Pendant and makes additional HMI's unnecessary.



ROBOT:

DENSO offers a wide range of 4- and 6-axis robots with payloads from 3 to 20kg and reaches from 350 to 1300mm. The full range can be used in combination with the EYEFEEEDER®. Thus simple positioning with a 4-axis (SCARA) robot is possible, or direct assembly with a 6-axis robot. The powerful PLC function in the DENSO RC8 robot controller allows direct operation of the EYEFEEEDER®, vision system or other components via its Teaching Pendant. Additional HMI's, PLC's or controllers are unnecessary.



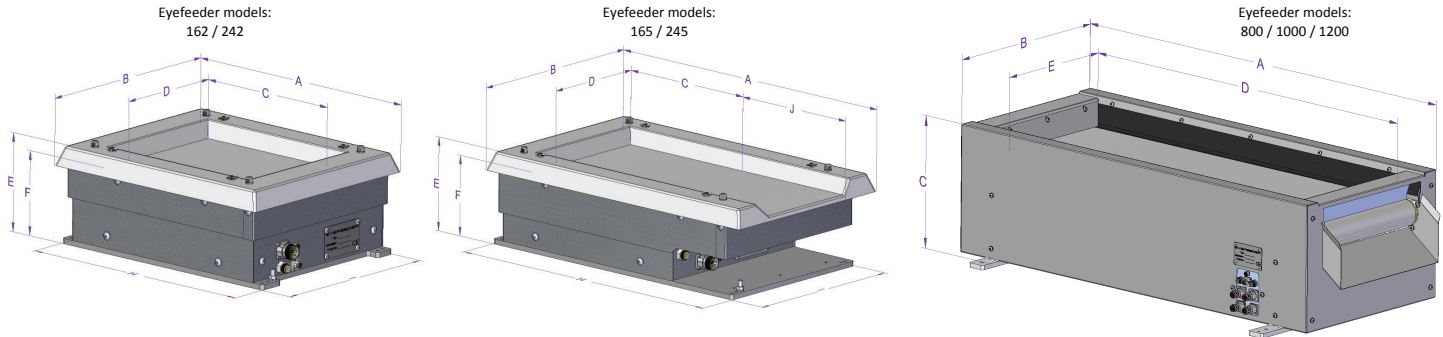
MINI EYEFEEEDER®:

The MINI EYEFEEEDER® is a patented feeder with a pneumatic shaking system. The software of the MINI EYEFEEEDER® is integrated in the DENSO robot controller and communication take place via parallel I/O's. Optimal spreading of the products can be obtained by selecting different shaking patterns on the DENSO Teaching Pendant. Its small dimensions make compact applications setup possible. The MINI EYEFEEEDER® comes standard with backlight.



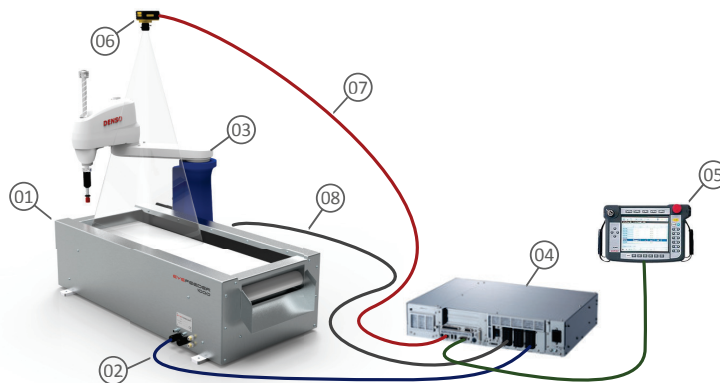
... of flexible feeders.

SPECIFICATIONS:



Model	Eyefeeder 162	Eyefeeder 165	Eyefeeder 242	Eyefeeder 245	Eyefeeder 800	Eyefeeder 1000	Eyefeeder 1200	
Dimensions (mm)	A	325 ± 2	463 ± 2	405 ± 2	544 ± 2	800	1000	1200
	B	270 ± 2	270 ± 2	330 ± 2	330 ± 2	327	417	507
	C	160	160	240	240	295	295	295
	D	120	120	180	180	697	897	1097
	E	158 ± 2	158 ± 2	158 ± 2	158 ± 2	198	295	385
	F	136 ± 2	136 ± 2	136 ± 2	136 ± 2	-	-	-
	H	325	433	405	513	-	-	-
	I	234	234	294	294	-	-	-
	J	-	± 228	-	± 220	-	-	-
	Drive	Pneumatics				Servomotors		
Air pressure (bar)	2 bar	2 bar & 6 bar	2 bar	2 bar & 6 bar	max. 6 bar (purge valve)			
Communication	Parallel I/O's				Servomotors integrated in DENSO RC8a controller			
Degree of Protection	IP40							
Backlight	Yes				Optional			
Weight	± 8,5 kg	± 10,5 kg	± 12,5 kg	± 14,5 kg	± 36 kg	± 45 kg	± 54 kg	
IR-backlight / Pick zone (3:4)	120 x 160 mm	120 x 160 mm	240 x 180 mm	240 x 180 mm	± 200 x 280 mm	± 300 x 400 mm	± 400 x 533 mm	
Conveyor belt types	Flat, Gridplate (add-on), Inlay sheets with special contour				White, White with spikes, Black, Blue, Blue with spikes			
Surface types	-							
Product dim. (min. / max.)	0,5 - 15 mm	0,5 - 15 mm	0,5 - 25 mm	0,5 - 25 mm	3 - 150 mm	3 - 200 mm	3 - 250 mm	
Max. product weight	~ 15 gr				~ 300 gr	~ 300 gr	~ 300 gr	

CONFIGURATION:



Pos.	Qty.	Description	Lenght	Remark
1	1	EYEFEEDEER / MINI EYEFEEDEER	-	-
2	1	EYEFEEDEER Motor / Encodercable	2, 3, 5, 10 m	Only with Eyefeeder 800/1000/1200
	1	EYEFEEDEER I/O cable	8 m	Only with Mini Eyefeeder 162 / 165 / 242 / 245
3	1	DENSO robot		4- or 6-axis
4	1	DENSO RC8 robot controller		Is included with DENSO robot
5	1	DENSO Teaching Pendant with cable	4, 8, 12 m	Displays vision system
	1	DENSO Mini Pendant with cable	4, 8, 12 m	No display vision system possible
6	1	Vision camera		-
7	1	Ethernet cable vision camera	5, 10 m	-
8	1	DENSO Motor & Encoder cable	2, 4, 6, 12 m	-

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FEATURES:

- **Flexible separation:**
Programmable system allowing multiple products on one system, consisting of EYEFEEEDER, a robot and a vision system. One system replaces multiple bowl and linear vibration feeders.
- **Compact:**
The thoughtful design allows compact applications. No return system or conveyor tracking so easy to integrate. The MINI EYEFEEEDER® is available in a 162/165 and 242/245 version, and the EYEFEEEDER in a 800, 1000 and 1200mm version.
- **Smart:**
Makes full use of the intelligence of the robot and is widely applicable: assembly, handling, machine loading, packaging, quality control.
- **Simplicity:**
Software and hardware are fully integrated in DENSO robot controller. Belt speed and shake patterns can easily be adjusted through DENSO Teaching Pendant. No additional HMI's, PLC's or controllers required.
- **Short cycletimes:**
Products are quickly fetched in detection area of camera by high belt speed and continuous supply from bulk feeder which makes very fast cycle times possible.
- **Various product handling:**
Product size: 0,5 to 250mm (diagonal), product weight from 0,01 to 300g. Handling of not solid products possible.

CONTACT:



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DESIGNED & MADE IN THE **NETHERLANDS**