



***Product catalogue 2017 / 2018***  
***Robot dress packs for reliable long lasting systems***



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## Becker Robotic Equipment – Hardware for Automation

Becker – The robot dress pack supplier for reliable long lasting systems.

For over 25 years, our main focus has been the development and advancement robotic cable routing systems (“Dresspacks”) for all robotic applications. Our products are engineered for reliability, durability, and efficiency within the industrial automation industry. World class design and engineering of robotic dress packs for new technologies and applications is our driving force, passion, and mission.

Resistance-spot-welding (servo-pneumatic & servoelectric) as well as handling applications in automotive production plants used to be the main part of equipment in automotive body shops. However due to the growing variability of different car body construction materials different types of joining technologies were developed in the last decades.

Nowadays company Becker also offers dress packs and stationary tools for following applications: self-piercing riveting, flow drill screw and rotary friction welding as well as clinching, stud welding and other applications.

Further special applications for car body construction such as different laser applications, sealing, sound protection and adhesive applications belongs the range of products of company Becker.

Our construction team developed a completely modular system for laser and adhesive-applications. Even robot dress packs for technically extraordinary applications such as welding with laser guns were developed by the Becker engineering team.

Within special projects or production lines for out of the common car concepts strategies are developed in direct corporation with the customer to find best possible solutions for unusual applications. Even for low quantities within a range of applications it is often possible to create systems with a modular concept.

It is our passion to solve whatever problem concerning robot dress pack systems and develop a suitable solution for each application and to apply the system in the production line on-site. Also individual and custom-engineered solutions.



### Robot dresspack support, PUR, with baseplate

Article no.	Description
4.067.004	Support BC67 with baseplate
4.090.004	Support BC90 with baseplate
4.117.004	Support BC117 with baseplate



### Robot dresspack support compact design, PUR

Article no.	Description
4.067.007	Support BC67 compact design
4.090.007	Support BC90 compact design
4.117.007	Support BC117 compact design
4.120.107	Block clamp for corrugated tube inner dia 90 fixation hole Ø 8,5mm, center distance 15mm



### Robot dresspack support without baseplate, PUR

Article no.	Description
4.067.000	Support BC67 without baseplate
4.090.000	Support BC90 without baseplate
4.117.000	Support BC117 without baseplate



### Baseplate for support, PA, fibre reinforced Tube clamp 1", PA, fibre reinforced

Article no.	Description
4.117.020-1	Baseplate for Support BC67, BC90 and BC117
4.117.030	Tube clamp 1"
4.117.035	Tube clamp 1" Aluminum with steelplate
4.120.035	Tube clamp 1" Aluminum with steelplate for support, corrugated tube inner dia 90





### Robot dresspack ball guide with trumpet

Article no.	Description
4.067.136-1-T	Ball with trumpet, for corrugated tube inner dia 36, for Support BC67
4.090.148-T	Ball with trumpet, for corrugated tube inner dia 48, for Support BC90
4.117.170-T	Ball with trumpet, for corrugated tube inner dia 70, for Support BC117

inner diameter in mm



### Robot dresspack ball guide

Article no.	Description
4.067.136	Ball for corrugated tube inner dia 36, for Support BC67
4.090.148-1	Ball for corrugated tube inner dia 48, for Support BC90
4.117.170	Ball for corrugated tube inner dia 70, for Support BC117

inner diameter in mm



### Robot dresspack ball guide, toothed, for corrugated tube with inner diameter 70mm

Article no.	Description
4.117.180	Ball, toothed, for bend protection sleeve and corrugated tube inner diameter 70mm

Use with bend protection sleeve 4.117.280-1



### Bend protection sleeve for robot dresspack

Article no.	Description
4.117.280-1	Bend protection sleeve for corrugated tube inner diameter 70mm



### Robot dresspack ball guide with trumpet, crossover type

Article no.	Description
4.067.148-1-T	Ball with trumpet, crossover for corrugated tube, inner dia 48, for Support BC67
4.090.170-T	Suppo Ball with trumpet, crossover for corrugated tube, inner dia 70, for Support BC90 rt BC90 with baseplate
4.117.194	Ball with trumpet, crossover for corrugated tube, inner dia 90, for Support BC117



### Robot dresspack ball guide with trumpet, PUR, for axial tube guidance

Article no.	Description
4.067.400-T	Tube guidance with trumpet for corrugated tube, inner dia 36, for Support BC67
4.090.400	Tube guidance with trumpet for corrugated tube, inner dia 48, for Support BC90



### Robot dresspack ball guide, PUR, for axial tube guidance

Article no.	Description
4.067.400	Tube guidance for corrugated tube inner dia 36, for Support BC67
4.090.401	Tube guidance for corrugated tube inner dia 48, for Support BC117



### Clamping ring as strain relief, PUR soft

Article no.	Description
4.067.8XX	Clamping ring ØXXmm for ball for corrugated tube, inner dia 36
4.090.8XX-2	Clamping ring ØXXmm for ball for corrugated tube, inner dia 48
4.117.8XX-2	Clamping ring ØXXmm for ball for corrugated tube, inner dia 70
4.117.90XX	Clamping ring ØXXmm for ball for corrugated tube, inner dia 90



### RoboRoc tube, PUR

Article no.	Description
4.600.148-1	RoboRoc tube for corrugated tube inner dia 36 and 48mm, for Support BC90
4.600.170-1	RoboRoc tube for corrugated tube inner dia 70mm, for Support BC117
4.600.248	RoboRoc tube short version for corrugated tube, inner dia 36 and 48mm, for Support BC90
4.600.190	RoboRoc tube for corrugated tube inner dia 90mm, for block clamp inner dia 90
4.600.270	RoboRoc tube short version for corrugated tube, inner dia 90mm, for block clamp inner dia 117



### Spring and spring counter bracket, PUR

Article no.	Description
4.500.850	Spring for corrugated tube 48mm, length Lo 850mm
4.500.852	Spring for corrugated tube 48mm, length Lo 650mm
4.500.400	Spring for corrugated tube 48mm, length Lo 400mm
4.500.341	Spring for corrugated tube 70mm, length Lo 700mm
4.500.901	Spring for corrugated tube 90mm, length Lo 700mm
4.067.426-1	Spring counter bracket for corrugated tube, inner dia 36
4.090.426-1	Spring counter bracket for corrugated tube, inner dia 48
4.117.426-1	Spring counter bracket for corrugated tube, inner dia 70
4.120.426	Spring counter bracket for corrugated tube, inner dia 90



### Protector and connector for corrugated tube, PA, with snap-on function

Article no.	Description
4.362.100-1	Protector and connector for corrugated tube, inner dia 36
4.482.100-1	Protector and connector or corrugated tube, inner dia 48
4.702.100-1	Protector and connector or corrugated tube, inner dia 70
4.902.100-1	Protector and connector or corrugated tube, inner dia 90



### Corrugated tube BR-DP-red

Article no.	Description
4.702.368-1	Corrugated tube for robots, inner dia 36mm
4.702.480-1	Corrugated tube for robots, inner dia 48mm
4.702.768-1	Corrugated tube for robots, inner dia 70mm
4.702.910-1	Corrugated tube for robots, inner dia 90mm

Corrugated tube also in PA endurable available



### Leather sleeve protection, with hook-and-loop stripes

Article no.	Description
4.117.712	Leather sleeve length 300 mm, with hook-and-loop stripes
4.117.715	Leather sleeve length 1000 mm, with hook-and-loop stripes
4.117.716	Leather sleeve length 1500 mm, with hook-and-loop stripes

To be used for different diameters



### Leather sleeve protection, with snap-fastener

Article no.	Description
4.117.720-0.5	Leather for corrugated tube inner dia 48-70mm, length 500mm

Can be connected to eachother to protect larger lengths



### Leather sleeve protection for support

Article no.	Description
4.117.710	Leather sleeve protection for support BC90-BC117

Protection against heat and weld spatter



**PUR Push-on hose PUR 6 with fibre reinforcement, inner dia 6mm, 1/4 inch**

Article no.	Description	
4.205.915-B	PUR Push-on hose, 6,4 x 12,0, clear	
4.215.915-B	PUR Push-on hose, 6,4 x 12,0, black	
4.225.915-B	PUR Push-on hose, 6,4 x 12,0, blue	
4.235.915-B	PUR Push-on hose, 6,4 x 12,0, grey	
4.245.915-B	PUR Push-on hose, 6,4 x 12,0, green	
4.265.915-B	PUR Push-on hose, 6,4 x 12,0, red	

inner diameter: 6,4 mm ; external diameter: 12 mm  
 working pressure max: 25 bar, burst pressure min.: 95 bar, vacuum: 1 bar  
 bending radius min: 25 mm  
 coil size: 50m

**PUR Push-on hose PUR 9 with fibre reinforcement, inner dia 9mm, 3/8 inch**

Article no.	Description	
4.205.916-B	PUR Push-on hose, 9,5 x 16,0, clear	
4.215.916-B	PUR Push-on hose, 9,5 x 16,0, black	
4.225.916-B	PUR Push-on hose, 9,5 x 16,0, blue	
4.235.916-B	PUR Push-on hose, 9,5 x 16,0, grey	
4.245.916-B	PUR Push-on hose, 9,5 x 16,0, green	
4.265.916-B	PUR Push-on hose, 9,5 x 16,0, red	

inner diameter: 9,5 mm ; external diameter: 16 mm  
 working pressure max: 20 bar, burst pressure min.: 85 bar, vacuum: 1 bar  
 bending radius min: 45 mm  
 coil size: 50m

**PUR Push-on hose PUR 12 with fibre reinforcement, inner dia 12mm, 1/2 inch**

Article no.	Description	
4.205.917-B	PUR Push-on hose, 12,5 x 19,0, clear	
4.215.917-B	PUR Push-on hose, 12,5 x 19,0, black	
4.225.917-B	PUR Push-on hose, 12,5 x 19,0, blue	
4.245.917-B	PUR Push-on hose, 12,5 x 19,0, green	
4.265.917-B	PUR Push-on hose, 12,5 x 19,0, red	

inner diameter: 12,5 mm ; external diameter: 19 mm  
 working pressure max: 20 bar, burst pressure min.: 80 bar, vacuum: 1 bar  
 bending radius min: 55 mm  
 coil size: 50m



**Assembly tool for fittings onto PUR Push-on hoses**

Article no.	Description
4.034.030-2	Assembly tool for fittings onto tube PUR 6-12
4.034.031	Assembly tool for fittings onto tube PUR 16-25

also with adapter pieces for 45° and 90° fittings



**PUR hose black, flame retardant**

Article no.	Description
4.240.023	Hose PUR, Ø4 x Ø2, anthracite
4.240.024	Hose PUR, Ø6 x Ø4, anthracite
4.240.025	Hose PUR, Ø6 x Ø3, anthracite
4.240.026	Hose PUR, Ø8 x Ø4, anthracite
4.240.027	Hose PUR, Ø10 x Ø6, anthracite
4.240.028	Hose PUR, Ø12 x Ø8, anthracite
4.240.029	Hose PUR, Ø14 x Ø10, anthracite



**PUR hose colored, flame retardant**

Article no.	Description	
4.014.200-WH	Hose PUR, Ø14 x Ø10, white	
4.014.200-BL	Hose PUR, Ø14 x Ø10, blue	
4.016.250-RD	Hose PUR, Ø16 x Ø11, red	
4.016.250-GN	Hose PUR, Ø16 x Ø11, green	



**Bulkhead connector**

Article no.	Description
2.221.106	Bulkhead connector Ø6mm, M14 x 1, brass
2.221.108	Bulkhead connector Ø8mm, M16 x 1, brass
2.221.110	Bulkhead connector Ø10mm, M18 x 1, brass
2.221.114	Bulkhead connector Ø14mm, M24 x 1, brass
2.221.116	Bulkhead connector Ø16mm, M28 x 1, brass



### Hose fitting, brass, with connecting nut, metric thread

Article no.	Description	
2.308.938	Hose fitting 3/8" with connecting nut M16x1,5	PUR 9
2.408.938	Hose fitting 3/8" with connecting nut M22x1,5	PUR 9
2.308.939	Hose fitting 1/2" with connecting nut M22x1,5	PUR 12



### Hose fitting, brass, with connecting nut, inch thread

Article no.	Description	
2.218.937	Hose fitting 1/4" with connecting nut 1/4"	PUR 6
2.218.938	Hose fitting 3/8" with connecting nut 3/8"	PUR 9
2.228.939	Hose fitting 1/2" with connecting nut 1/2"	PUR 9
2.218.940	Hose fitting 5/8" with connecting nut 3/4"	PUR 16
2.218.941	Hose fitting 3/4" with connecting nut 1"	PUR 19
2.218.943	Hose fitting 1" with connecting nut 1 1/4"	PUR 25



### Hose fitting 90°, brass, with connecting nut, metric or inch thread

Article no.	Description	
2.308.937/90	Hose fitting 1/4" with connecting nut M14x1,5	PUR 6
2.308.938/90	Hose fitting 3/8" with connecting nut M16x1,5	PUR 9
2.308.939/90	Hose fitting 1/2" with connecting nut M22x1,5	PUR 12
2.218.938/90	Hose fitting 5/8" with connecting nut 3/4"	PUR 9
2.228.939/90	Hose fitting 1/2" with connecting nut 1/2"	PUR 12



### Hose fitting 45°, brass, with connecting nut, metric thread

Article no.	Description	
2.308.937/45	Hose fitting 1/4" with connecting nut M14x1,5	PUR 6
2.308.938/45	Hose fitting 3/8" with connecting nut M16x1,5	PUR 9
2.308.939/45	Hose fitting 1/2" with connecting nut M22x1,5	PUR 12



### Screw-in fitting, metric thread, brass

Article no.	Description
2.141.413	Screw-in fitting, 1/4" 60° cone, M14x1.5 24° cone
2.381.613	Screw-in fitting, 3/8" 60° cone, M16x1.5 24° cone
2.122.213	Screw-in fitting, 1/2" 60° cone, M22x1.5 24° cone
2.141.600	Screw-in fitting, 1/4" 60° cone, M16x1.5 24° cone
2.122.211	Screw-in fitting, 3/8" 60° cone, M22x1.5 24° cone



### Robot dresspack support without baseplate, PUR

Article no.	Description
2.217.562	Screw-in fitting, 1/4" - 3/8"
2.217.564	Screw-in fitting, 3/8" - 1/2"
2.217.566	Screw-in fitting, 1/2" - 3/4"
2.217.568	Screw-in fitting, 3/4" - 1"
2.217.570	Screw-in fitting, 1" - 1 1/4"



### Fitting, metric thread, brass

Article no.	Description
2.252.222	Fitting M22x1.5, 24° cone



### Fitting, inch thread, brass

Article no.	Description
2.217.561	Fitting 1/4"
2.217.563	Fitting 3/8"
2.217.565	Fitting 1/2"
2.217.567	Fitting 3/4"
2.217.569	Fitting 1"
2.217.571	Fitting 1 1/4"



**Bulkhead fitting, metric thread, brass**

Article no.	Description
2.221.616	Bulkhead fitting M16 x 1.5, 24° cone
2.222.222	Bulkhead fitting M22 x 1.5, 24° cone



**Screw-in fitting with connection nut, inch thread, brass**

Article no.	Description
2.217.521	Screw-in fitting with connection nut 3/8"
2.217.523	Screw-in fitting with connection nut 1/2"



**Robot dresspack support compact design, PUR**

Article no.	Description
2.217.576	Screw-in fitting 90°, 1/4"
2.217.577	Screw-in fitting 90°, 3/8"
2.217.578	Screw-in fitting 90°, 1/2"
2.217.579	Screw-in fitting 90°, 3/4"
2.217.580	Screw-in fitting 90°, 1"



**Screw-in fitting 90°, a-symmetric, brass, 60° cone**

Article no.	Description
2.217.583	Screw-in fitting 90°, 3/8" - 1/4"
2.217.584	Screw-in fitting 90°, 3/8" - 1/2"
2.217.585	Screw-in fitting 90°, 1/2" - 3/4"
2.217.589	Screw-in fitting 90°, 3/4" - 1"



**Screw-in fitting 45°, inch thread, symmetric, brass, 60° cone**

Article no.	Description
2.217.572	Screw-in fitting 45°, 1/4"
2.217.573	Screw-in fitting 45°, 3/8"
2.217.574	Screw-in fitting 45°, 1/2"
2.217.575	Screw-in fitting 45°, 3/4"



**Screw-in fitting 45°, inch thread, a-symmetric, brass, 60° cone**

Article no.	Description
2.217.546	Screw-in fitting 45°, 1/4" - M10
2.217.547	Screw-in fitting 45°, 1/4" - 3/8"



**Hose fitting with outside thread, brass, 60° cone**

Article no.	Description	
2.288.938	Hose fitting 3/8"	PUR 9
2.288.939	Hose fitting 3/8"	PUR 12

## Bracket Axis 6

Further variants or the assignment to other robot types are available on request.



### *e.g. ABB IRB 6700*

Article no.	Description
4.HA6.2000	Bracket axis 6, Ø200 mm x 15mm straight, galvanized



### *e.g. Kuka Quantec without groove*

Article no.	Description
4.HA6.1404-2	Bracket axis 6, Ø140 mm x 15 mm straight, galvanized clamp fastening



### *e.g. Fanuc R2000iA /iB 125L /165F*

Article no.	Description
4.HA6.1608	Bracket axis 6, Ø160 mm x 15 mm with 1" tube 280mm straight, galvanized



### *e.g. Kuka Quantec with groove*

Article no.	Description
4.HA6.1900N	Bracket axis 6, Ø190mm for mounting in groove straight, galvanized



### *e.g. Kuka Fortec*

Article no.	Description
4.HA6.2500	Bracket axis 6, Ø250mm x 15mm straight, galvanized



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