# **Guide for Vessel and Process Engineers**



**Stainless Steel Manways** 

**Stainless Steel Access Doors** 

**Stainless Steel Ports and Fittings** 



ARCHON INDUSTRIES, INC. www.ARCHONind.com

- Large selection of ASME Pressure manways for the Pharmaceutical sector.
- Complete product range for the Chemical, Food, Wine and Dairy Industries.
- The most modern machines and control methods used in manufacturing.
- Standard off-the-shelf products or custom designed as per customer specifications.
- Execution of special customer features, from design through fabrication.
- Manways offered with ASME and/or European PED certification.

#### **ARCHON PRODUCTS INCLUDE:**

- Manways
- Washdown Stations
- Sight Glasses
- Explosion Proof Lights
- Sightflows Indicators
- Armored Liquid Level Gauges
- Spray Balls
- DIN Fittings
- Butterfly Valves

# table of contents

table of contents:	page
nove de management anno LIR TO 450 maior / 5)/	0 0
round pressure covers <b>UP TO</b> 150 psig / FV	2 - 3
round pressure covers <b>OVER</b> 150 psig / FV	4 - 5
round pressure covers <b>UP TO</b> 15 psig / FV	6 - 7
oval pressure covers <b>UP TO</b> 150 psig / FV	8
round cone covers <b>UP TO</b> 85 psig / FV	9
round pressure covers with glass pane for observation	10
round pressureless covers with glass pane for observation	11
fused glass cover - Meta	12
fused glass cover - Pharma	13
seals - gaskets	14 - 15
round pressureless covers	16 - 17
oval manhole covers	18 - 19
oval handhole covers	20
round sight-glasses (Weld Pad Type)	21
sanitary sight-glasses clamp-on type	22
model KA-100 lighting unit	23
model Ex99 explosion proof light	24
spare parts, fittings, safety grill and safety cross	25 - 26
tank feet	27

## up to 150 psig / FV

with approval acc. to PED 97/23/EG with ASME-approval (optional)



# standard design

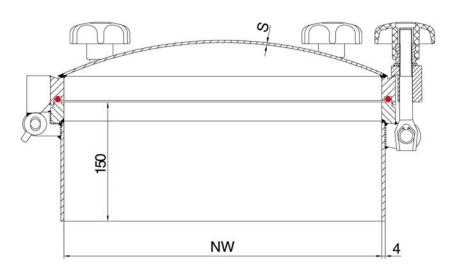
- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- stainless steel handles
- silicone seal (blue)
- with hinge and handle
- neck height 6" (150 mm), neck thickness 4 mm
- surface finish: unground shot blasted, from size 600 unground;pickled

# options

- wetted materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- · intermediate sizes possible
- variety of seal materials (p.14 15)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- neck length up to 2000 mm, neck thickness up to 20 mm
- with conical neck (up to 8 mm thickness)
- various handles and screws: stainless steel handle, t-handle, collarnut (p.25)
- cover with swivel feature (p.25)
- cover with wedge for installation on the side of the vessel (p. 25)
- locking pin (p.25)
- spring assist (torsion-, disc- or gas-springs) (p.25)
- sightglasses: weld pad type, screw-on type, clamp type
- limit switches
- safety grill and safety cross (p.26)
- non-wetted metal parts in different materials

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040



# 150 psig / FV

with approval acc. to PED 97/23/EG with ASME-approval (optional)

model #	size	max. allowed	max. allowed	number of	overall	S in	weight in
	(NW)	working	working	screws M16	length	316L SS	kg
		pressure in bar	temperature in				
			° C				
20162004	100	6	200	4	180	6	9
21562004	150	6	200	4	185	4	11
22062004	200	6	200	4	190	4	14
22542804	250	4	280	4	195	4	16
22582504	250	8	250	4	195	5	17
23042504	300	4	250	4	200	3	18
23062806	300	6	250	6	200	4	21
23082506	300	8	250	6	200	5	22
23542004	350	4	200	4	215	3	21
23562006	350	6	200	6	215	4	24
24042804	400	4	280	4	230	3	24
24060506	400	6	50	6	230	4	27
24062808	400	6	280	8	230	4	28
24082810	400	8	280	10	230	5	31
24542806	450	4	280	6	240	3	28
24562508	450	6	250	8	240	4	31
24582010	450	8	200	10	240	5	34
25032806	500	3	280	6	255	3	31
25042808	500	4	280	8	255	3	33
25062510	500	6	250	10	255	4	38
25081512	500	8	150	12	255	5	40
26022806	600	2	280	6	285	3	42
26040508	600	4	50	8	285	3	44
26042810	600	4	280	10	285	4	46
26061512	600	6	150	12	285	4	49
26081012	600	8	100	12	285	5	53
27022806	700	2	280	8	295	3	56
27042812	700	4	280	12	295	4	64
27061514	700	6	150	14	295	5	70
27081016	700	8	100	16	295	6	78
28020508	800	2	50	8	300	4	76
28022810	800	2	280	10	300	4	78
28042814	800	4	280	14	300	4	82
28061518	800	6	150	18	300	5	90
28080520	800	8	100	20	300	6	97
29022810	900	2	280	12	320	4	87
29042518	900	4	250	18	320	5	103
29061522	900	6	150	22	320	6	115
29080524	900	8	50	24	320	8	128
21022812	1000	2	280	12	340	5	110
21042020	1000	4	200	20	340	5	118
21060524	1000	6	50	24	340	6	125

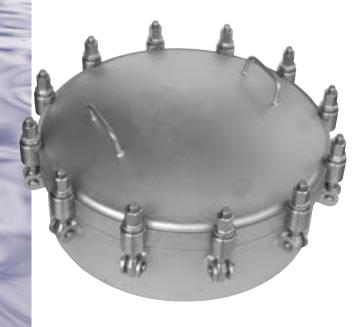
seals see page 12/13

Archon Industries, Inc. tel: (845) 368-3600 357 Spook Rock Road Suffern, NY 10901 USA

fax: (845) 368-3040

## up to 150 psig / FV

with approval acc. to PED 97/23/EG with ASME-approval (optional)

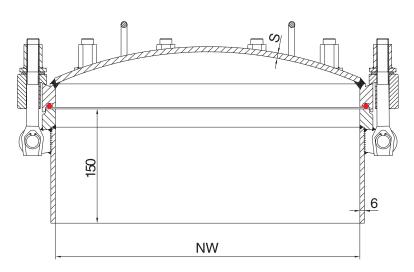


## standard design

- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- with stainless steel collar nuts
- silicone seal
- · without hinge, with two handles
- neck height 6" (150 mm), neck thickness 6 mm
- surface finish: unground, shot blasted, from size 600, unground, pickled

## options

- wetted materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- intermediate sizes possible
- variety of seal materials (p.14 15)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- neck length up to 2000 mm, neck thickness up to 20 mm
- with conical neck (up to 8 mm thickness)
- various handles and screws: stainless steel handle, t-handle, collarnut (p.25)
- cover with swivel feature (p.25)
- cover with wedge for installation on the side of the vessel (p.25)
- locking pin (p.25)
- spring assist (torsion-, disc- or gas-springs) (p.25)
- sightglasses: weld pad type, screw-on type, clamp type
- limit switches
- safety grill and safety cross (p.26)
- non-wetted metal parts in different materials



Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

# 150 psig / FV

with approval acc. to PED 97/23/EG with ASME-approval (optional)

model #	size (NW)	max. allowed working pressure in bar	max. allowed working temperature in ° C	number of screws M 16	overall height	radius of the lid	S in 316L SS	weight in kg
20102004	100	10	200	4	175	flat	24	9
20142004	100	40	200	4	175	flat	24	10
21502004	150	10	200	4	175	flat	24	13
21542004	150	40	200	4	175	flat	24	14
22102004	200	10	200	4	175	flat	24	19
22252006	200	25	200	6	175	flat	24	20
22402008	200	40	200	8	175	flat	24	22
22502004	250	10	200	4	175	flat	24	24
22552006	250	25	200	8	175	flat	24	27
22502010	250	40	200	10	175	flat	24	29
23102006	300	10	200	6	200	500	6	23
23162008	300	16	200	8	200	500	10	27
23251010	300	25	100	10	200	500	10	29
23502006	350	10	200	6	215	500	6	28
23562008	350	16	200	8	215	500	10	33
23552012	350	25	200	12	215	500	14	40
24102008	400	10	200	8	230	500	6	33
24162012	400	16	200	12	230	500	10	41
24252016	400	25	200	16	230	500	12	47
24502012	450	10	200	10	240	500	6	39
24562014	450	16	200	14	240	500	10	48
24550518	450	25	50	18	240	500	10	51
25102012	500	10	200	12	255	500	6	45
25151516	500	16	150	16	255	500	10	55
25202020	500	20	200	20	255	500	12	62
26102014	600	10	200	14	285	500	6	52
26161520	600	16	150	20	285	500	8	65
26200526	600	20	50	26	285	500	10	75
27102018	700	10	200	18	295	700	8	87
27161530	700	16	150	30	295	700	10	104
27205034	700	20	50	34	295	700	10	107
28102024	800	10	200	24	300	800	10	115
28120536	800	16	50	36	300	800	12	133
29101530	900	10	150	30	320	900	10	139
29120534	900	12	50	34	320	900	10	140
21100536	1000	10	50	36	340	1000	10	161
21120542	1000	12	50	42	340	1000	12	166

seals see page 12/13

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040

#### 1- bar cover

### 15 psig / FV

with/without approval acc. to PED 97/23/EG (ASME-approval possible)

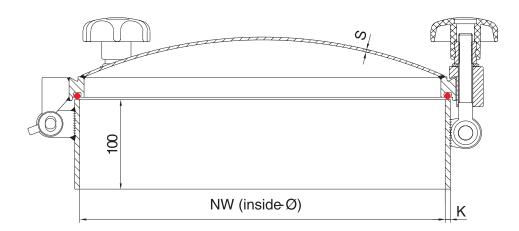


### standard design

- wetted material: ASTM SA-240 316LSS non-wetted: 304SS
- stainless steel handle with stainless steel sleeve (with ASME)
- plastic handle with stainless steel sleeve (without ASME)
- silicone seal (blue)
- with hinge, with handle
- neck height 4" (100 mm)
- surface unground, shot blasted, from size 600 unground, pickled

## options

- wetted materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- intermediate sizes possible
- variety of seal materials (p.14 15)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- neck length up to 2000 mm, neck thickness up to 20 mm
- with conical neck (up to 8 mm thickness)
- various handles and screws: stainless steel handle, t-handle, collarnut (p.25)
- cover with swivel feature (p.25)
- cover with wedge for installation on the side of the vessel (p.25)
- locking pin (p.25)
- spring assist (torsion-, disc- or gas-springs) (p.25)
- sightglasses: weld pad type, screw-on type, clamp type
- limit switches
- safety grill and safety cross (p.26)
- non-wetted metal parts in different materials



Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

### 1 - bar cover

# 15 psig / FV

with/without approval acc. to PED 97/23/EG (ASME-approval possible)

# **ASME**

model #	size (NW)	neck inside diameter	number of screws M16	neck thickness K	thickness of cover S	weight in kg
311 104T	100	111	4	6	3	7
315 104T	150	161	4	6	3	8.5
321 104T	200	211	4	6	3	10
325 104T	250	261	4	6	3	11
331 104T	300	311	4	6	3	13
335 104T	350	361	4	6	3	15.5
341 104T	400	411	4	6	3	18
345 104T	450	461	4	6	3	19.5
351 104T	500	511	4	6	3	21
361 104T	600	611	6	6	3	28
371 104T	700	707	6	8	3	37
381 104T	800	807	8	8	3	40
391 104T	900	907	8	8	4	70
301 104T	1000	1003	10	10	4	86

# NON-ASME

model #	size (NW)	neck inside diameter	number of screws M12	neck thickness K	thickness of cover S	weight in kg
311 104	100	111	4	6	3	7
315 104	150	161	4	6	3	8.5
321 104	200	211	4	6	3	10
325 104	250	261	4	6	3	11
331 104	300	311	4	6	3	13
335 104	350	361	4	6	3	15.5
341 104	400	411	4	6	3	18
345 104	450	461	4	6	3	19.5
351 104	500	511	4	6	3	21
361 104	600	611	6	6	3	28
371 104	700	707	6	8	3	37
381 104	800	807	8	8	3	40
391 104	900	907	8	8	4	70
301 104	1000	1003	10	10	4	86

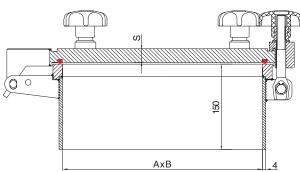
seals see page 14-15

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

#### oval pressure cover

### up to 10/-1 bar overpressure





### sandard design

- wetted material: ASTM SA-240 316LSS non-wetted: 304SS
- stainless steel handles
- silicone seal (blue)
- with hinge, with handle
- neck height 6" (150 mm), neck thickness 4 mm
- surface unground, pickled

## options

- wetted materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- intermediate sizes possible
- variety of seal materials (p.14 15)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- neck length up to 2000 mm, neck thickness up to 20 mm
- various handles and screws: stainless steel handle, t-handle, collarnut (p.25)
- cover with swivel feature (p.25)
- cover with wedge for installation on the side of the vessel (p.25)
- locking pin (p.25)
- spring assist (torsion-, disc- or gas-springs) (p.25)
- sightglasses: weld pad type, screw-on type, clamp type
- limit switches
- safety grill and safety cross (p.26)
- non-wetted metal parts in different materials

model #	Α	В	max. allowed working pressure in bar	max. allowed working temperature in ° C	number of screws M16	overall height	S in 316L SS	weight in kg
2203042506	200	300	4	250	6	170	16	26
2203062506	200	300	6	250	6	175	19	28
2203002506	200	300	10	250	6	180	24	32
2252552506	250	350	4	250	6	170	16	31
2253562506	250	350	6	250	6	175	19	34
2253502508	250	350	10	250	8	180	24	39
2304042806	300	400	4	250	6	170	16	36
2304062506	300	400	6	250	6	175	19	42
2304002510	300	400	10	250	10	180	24	49
2354542506	350	450	4	250	6	180	24	55
2354562508	350	450	6	250	8	180	24	56
2354502512	350	450	10	250	12	180	24	59
2405042508	400	500	4	250	8	180	24	65
2405062510	400	500	6	250	10	180	24	67
2405002512	400	500	10	250	12	180	24	69

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040

info@ARCHONind.com

seals see page 14-15

# standard design

- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- with stainless steel blind hole nuts
- silicone seal (blue)
- with swivel feature
- neck height 4.75" (120 mm), neck thickness 4 mm
- outlet diameter Ø 40 mm
- surface unground, shot blasted, from size 600 unground, pickled

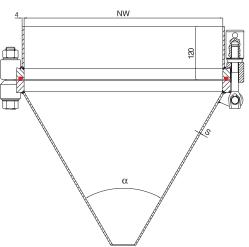
# options

- materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- intermediate sizes available
- · different opening angles available
- variety of seals materials (p.14 15)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- neck length up to 2000 mm, neck thickness up to 20 mm
- cover completely conical
- various handles: t-hole nuts, collar nuts etc. (p.25)
- different nozzle-outlets
- · various limit switches
- · metal parts in different materials

#### pressure cone cover

## up to 6/-1 bar overpressure





model #	size (NW)/α	max. allowed working pressure in bar	max. allowed temperature in °C	number of screws M16	overall height	cone thickness S	weight in kg
230 060	300 / 60°	6	100	4	385	4	20
230 090	300 / 90°	6	100	4	275	4	20
240 060	400 / 60°	6	100	6	470	4	28
240 090	400 / 90°	6	100	6	325	4	28
245 060	450 / 60°	6	100	6	520	4	30
245 090	450 / 90°	6	100	6	350	4	30
250 060	500 / 60°	6	100	10	560	4	37
250 090	500 / 90°	6	100	10	375	4	37
260 060	600 / 60°	6	100	12	645	5	46
260 090	600 / 90°	6	100	12	425	5	46

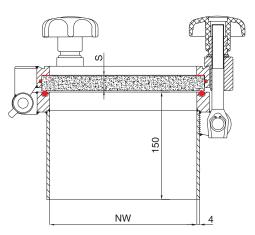
Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

### pressure cover with glass pane

## up to 12/-1 bar overpressure

with approval acc. to PED 97/23/EG with ASME-approval (optional)





### standard design

- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- with tempered borosilicate glass DIN 7080
- stainless steel handles
- silicone seal (blue)
- · with hinge and handle
- neck height 6" (150 mm), neck thickness 4 mm
- surface unground shot blasted, from NW 600 unground, pickled

# options

- wetted materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- intermediate sizes possible
- variety of seal materials (p.14 15)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- neck length up to 2000 mm, neck thickness up to 20 mm
- with conical neck (up to 8 mm thickness)
- various handles and screws: stainless steel handle, t-handle, collarnut (p.25)
- cover with swivel feature (p.25)
- cover with wedge for installation on the side of the vessel (p.25)
- locking pin (p.25)
- spring assist (torsion-, disc- or gas-springs) (p.25)
- limit switches
- safety grill and safety cross (p.26)
- non-wetted metal parts in different materials
- with wipers and lights

model #	size (NW)	max. allowed working pressure in bar	max. allowed working temperature in °C	number of screws M16	size of glass pane	weight in kg
221 000	100	4	280	4	125 x 15	13
221 012	100	12	280	4	125 x 20	14
221 500	150	4	280	4	175 x 20	15
222 000	200	4	280	4	225 x 20	18
222 010	200	10	280	4	225 x 25	19
222 500	250	4	280	4	275 x 25	25
222 508	250	8	280	4	275 x 30	26
223 000	300	4	280	4	325 x 30	29
223 006	300	6	280	6	325 x 30	30
223 500	350	4	280	4	375 x 30	34
224 000	400	3	280	4	425 x 30	39
224 500	450	2.5	280	6	475 x 30	43
225 000	500	2	280	6	525 x 30	48
226 000	600	1	280	6	625 x 30	61

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

# standard design

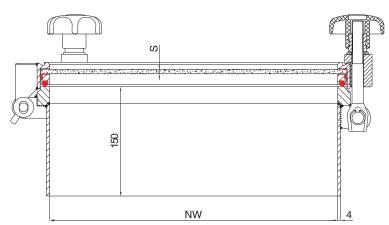
- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- · with soda lime glass pane
- plastic handles with stainless steel sleeves
- silicone seal (blue)
- · with hinge and handle
- neck height 6" (150 mm), neck thickness 4 mm
- surface unground shot blasted, from size 600 unground, pickled

# options

- wetted materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- intermediate sizes possible
- variety of seal materials (p.14 15)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- neck length up to 2000 mm, neck thickness up to 20 mm
- with conical neck (up to 8 mm thickness)
- various handles and screws: stainless steel handle, thandle, collarnut (p.25)
- cover with swivel feature (p.25)
- locking pin (p.25)
- spring assist (torsion-, disc- or gas-springs) (p.25)
- limit switches
- safety grill and safety cross (p.26)
- · non-wetted metal parts in different materials
- with wipers and lights







model #	size (NW)	number of screws M16	thickness of glass pane	weight in kg
332 004	200	4	6	13
332 504	250	4	6	15
333 004	300	4	6	17
333 504	350	4	6	19
334 004	400	4	6	21
334 504	450	4	6	23
335 004	500	4	6	27
336 004	600	4	6	31

seals see page 14-15

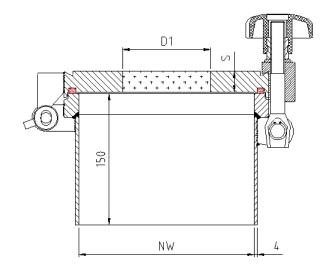
Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

#### fused glass cover - Meta

### up to 10/-1 bar overpressure

with approval acc. to PED 97/23/EG with ASME approval (optional)





## standard design

- wetted material: 316L SS / fused borosilicate glass/ duplex SS
- plastic handle with stainless steel sleeve
- silicone seal (blue)
- with hinge and handle (picture with spring assist as an option)
- neck height incl. flange 6" (150mm), neck thickness 4mm
- surface finish: unground, shot blasted

## options

- wetted materials: HC-22, HC-276, HC-2000, Alloy 304 L, 316 LN SS, etc.
- fused glass: Ring: HC-22, HC-276

Glass: quartz glass, sapphire glass

- intermediate sizes possible
- surface finishes: pickled, ground up to 500 grit
- neck length up to 2000mm, neck thickness up to 10mm depending on the diameter
- with conical neck (up to 8mm neck thickness)
- various handles and screws: stainless steel handle, wing-nuts, collar nut, etc. (see p.25)
- cover with swivel feature (see p.25)
- cover with wedge for installation on the side of the vessel (see p.25)
- locking pin (see p.25)
- spring assist (torsion-, disc- or gas-springs) (see p.25)
- · various limit switches
- safety grill / safety cross
- non-wetted metal parts in different materials
- wipers and/or lights

# advantages

- glass cover is blow-out resistant and shatter resistant
- Seal is built in the cover and is not exposed
- wetted surfaces are easily cleaned
- glass cover is easily replaced

model #	size ID (mm)	max. allowed working pressure in bar	max, allowed working temp in °C	number of screws M16	thickness of flnage/glass S1 (mm)	thickness of the neck S2 (mm)	viewing D1 (mm)	weight in kg
221 000 META	100	4 bar	280 °C	4	24	4	60	14
221 012 META	100	12 bar	280 °C	4	24	6	60	15
221 500 META	150	4 bar	280 °C	4	24	4	75	15
221 504 META	150	10 bar	280 °C	4	24	6	75	16
222 000 META	200	4 bar	280 °C	4	24	4	100	19
222 010 META	200	10 bar	280 °C	4	24	6	100	21
222 500 META	250	4 bar	280 °C	4	24	4	125	26
222 508 META	250	8 bar	280 °C	4	24	6	125	28
223 000 META	300	4 bar	280 °C	4	24	4	150	28
223 006 META	300	6 bar	280 °C	6	24	6	150	32

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040

## standard design

- wetted material: 316L SS, fused borosilicate glass duplex SS
- plastic handle with stainless steel sleeve
- silicone seal (blue)
- with hinge and knob
- flange 50mm high, 10mm thick, outside in conical shape
- · surface unground, pickled

# options

- wetted materials: HC-22, HC-276, HC-2000, Alloy 304L, 316LN SS, etc.
- fused glass: ring: HC-22, HC-276 glass: quartz glass, sapphire glass
- intermediate sizes possible
- variety of seal materials (see p.14-15)
- surface finishes: shot blasted, ground up to 500 grit
- various handles and screws: stainless steel handle, wing-nut, collar nut, etc. (see p.25)
- locking pin (see p.25)
- spring assist (torsionsprings) (see p.25)
- various limit switches
- safety grill / safety cross
- non-wetted: metal parts in different materials
- wipers and/or lights

# advantages

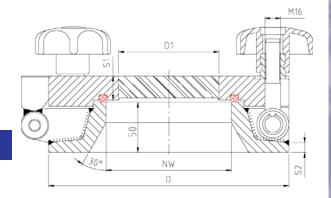
- · glass cover blow-out resistant and shatter-resistant
- · seal is built in the upper flange, and is not exposed
- wetted surfaces are easily cleaned

## fused glass cover - Pharma

### up to 10/-1bar

with ASME approval (optional)





model #	size ID (mm)	max.allowed working pressure in bar	max. allowed working temp in °C	number of screws M16	thickness	thickness of flange S2 (mm)		viewing D1 (mm)	weight in kg
221 000 FLANGE	100	10 bar	280 °C	4	24	10	215	80	14
221 250 FLANGE	125	10 bar	280 °C	4	24	10	240	100	15
221 500 FLANGE	150	10 bar	280 °C	4	24	10	265	125	15
221 750 FLANGE	175	10 bar	280 °C	4	24	10	290	150	16
222 250 FLANGE	225	10 bar	280 °C	4	24	10	340	175	19

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

## seals



# O-Ring seals

size (NW)	silicone blue + 180 / -50° C FDA part no.	EPDM black + 125 / -40° C FDA part no.	Viton black + 200 / -10° C part no.
100	201si	201ep	201vi
150	215si	215ep	215vi
200	220si	220ep	220vi
250	225si	225ep	225vi
300	230si	230ер	230vi
350	235si	235ep	235vi
400	240si	240ep	240vi
450	245si	245ep	245vi
500	250si	250ep	250vi
600	260si	260ep	260vi
700	270si	270ep	270vi
800	280si	280ep	280vi
900	290si	290ep	290vi
1000	210si	210ep	210vi

# teflon encapsulated FEP-/PFA O-Ring seals

	FEP-silicone	FEP-Viton	PFA-silicone
	Teflon Encapsulated Silicone + 204/-60° C	FEP-encapsulated + 204/-20° C	PFA-encapsulated + 260/-60° C
	coat: transparent core: red	coat: transparent core: black	coat: transparent core: red
size	FDA	FDA	FDA
(NW)	part no.	part no.	part no.
100	201fes	201fev	201pfa
150	215fes	215fev	215pfa
200	220fes	220fev	220pfa
250	225fes	225fev	225pfa
300	230fes	230fev	230pfa
350	235fes	235fev	235pfa
400	240fes	240fev	240pfa
450	245fes	245fev	245pfa
500	250fes	250fev	250pfa
600	260fes	260fev	260pfa
700	270fes	270fev	270pfa
800	280fes	280fev	280pfa
900	290fes	290fev	290pfa
1000	210fes	210fev	210pfa

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040

# P-Profile-seals for pressure

size (NW)	silicone transparent +180 / -60° C FDA part no.	EPDM black +95 / -35° C FDA part no.
100	201sip	201epp
150	215sip	215epp
200	220sip	220epp
250	225sip	225epp
300	230sip	230ерр
350	235sip	235epp
400	240sip	240epp
450	245sip	245epp
500	250sip	250epp
600	260sip	260epp
700	270sip	270epp
800	280sip	280epp
900	290sip	290epp
1000	210sip	210epp

### seals



# replacement seal and glasspane for pressure glass cover

size (NW)	part no. seal-set	dimension of holding seal	dimension of flat seal	part no.	dimension of replacement
glasspane	glasspane	Holding Seal	nat seai	glasspane	glasspane
100	221 000 D	Ø 4 mm x 390 mm	Ø 125 x Ø 100 x 1,5	221015	Ø 125 x 15
100				221020	Ø 125 x 20
150	221 500 D	Ø 4 mm x 460 mm	Ø 175 x Ø 150 x 1,5	221520	Ø 175 x 20
200	222 000 D	Ø 4 mm x 610 mm	Ø 225 x Ø 200 x 1,5	222020	Ø 225 x 20
200				222025	Ø 225 x 25
250	222 500 D	760 mmØ 4 mm x	Ø 275 x Ø 250 x 1,5	222525	Ø 275 x 25
250				222530	Ø 275 x 30
300	223 000 D	Ø 4 mm x 920 mm	Ø 325 x Ø 300 x 1,5	223030	Ø 325 x 30
350	223 500 D	Ø 4 mm x 1050 mm	Ø 375 x Ø 350 x 1,5	223530	Ø 375 x 30
400	224 000 D	Ø 4 mm x 1230 mm	Ø 425 x Ø 400 x 1,5	224030	Ø 425 x 30
450	224 500 D	Ø 4 mm x 1390 mm	Ø 475 x Ø 450 x 1,5	224530	Ø 475 x 30
500	225 000 D	Ø 4 mm x 1550 mm	Ø 525 x Ø 500 x 1,5	225030	Ø 525 x 30
600	226 000 D	Ø 4 mm x 1850 mm	Ø 625 x Ø 600 x 1,5	226030	Ø 625 x 30

# replacement seal and glasspane for pressureless glass cover

size (NW) glasspane	part no seal-set glasspane	dimension of holding seal	dimension of flat seal	part no. replacement glasspane	part no. replacement glasspane
200	332 004 D	Ø 225 x Ø 200 x 1,5	Ø 225 x Ø 200 x 1,5	33206	Ø 224 x 6
250	332 504 D	Ø 275 x Ø 200 x 1,5	Ø 275 x Ø 250 x 1,5	33256	Ø 274 x 6
300	333 004 D	Ø 325 x Ø 200 x 1,5	Ø 325 x Ø 300 x 1,5	33306	Ø 324 x 6
350	333 504 D	Ø 375 x Ø 200 x 1,5	Ø 375 x Ø 350 x 1,5	33356	Ø374 x 6
400	334 004 D	Ø 425 x Ø 200 x 1,5	Ø 425 x Ø 400 x 1,5	33406	Ø 424 x 6
450	334 504 D	Ø 475 x Ø 200 x 1,5	Ø 475 x Ø 450 x 1,5	33456	Ø 474 x 6
500	335 504 D	Ø 525 x Ø 200 x 1,5	Ø 525 x Ø 500 x 1,5	33506	Ø 524 x 6
600	336 004 D	Ø 625 x Ø 200 x 1,5	Ø 625 x Ø 600 x 1,5	33606	Ø 624 x 6

Archon Industries, Inc. tel: (845) 368-3600 357 Spook Rock Road Suffern, NY 10901 USA

fax: (845) 368-3040

#### pressureless-dome cover



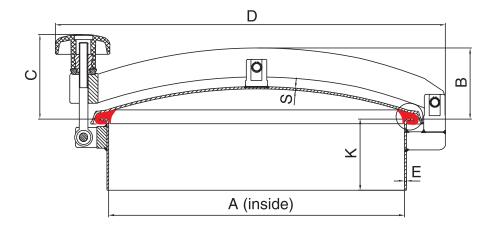
size	Α	В	С	D	Е	S
(NW)						
100	100	60	110	230	2	2
150	150	65	110	280	2	2
200	200	70	110	335	2	2
300	298	85	120	440	2.5	2
400	415	100	120	550	2.5	2
500	505	125	120	650	2.5	2
600	600	140	120	740	2.5	2
800	810	140	120	950	3	2.5

## standard design

- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- plastic handle with brass sleeves (M12)
- silicone seal (transparent)
- hinged lid
- surface: unground, electro-polished, from size 600 unground, pickled

# options

- variety of seals materials (p.14 15)
- various handles and screws: stainless steel handle, thandle, collarnut (p.25)
- optional swivel feature
- welding of different fittings (weld pad, screw-on sightglasses, tri-clamp-ferrules etc.) (p.21 - 22)
- · various limit switches
- safety grill and safety cross (p.26)
- surface finishes (shot blasted, pickled or ground to 500 grit)
- metal parts in different materials



seal detail NW 200-800



seal detail NW 100-150



Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

# pressureless dome cover

model #	size	neck length	weight
	(NW)	K	in kg
310 600	100	60	2.4
311 000	100	100	2.6
longer neck per 50 mm			
315 600	150	60	2.6
315 000	150	100	2.8
longer neck per 50 mm			
320 600	200	60	3.3
321 000	200	100	3.5
longer neck per 50 mm			
330 600	300	60	5.5
331 000	300	100	6
longer neck per 50 mm			
341 000	400	100	10
341 500	400	150	11
342 000	400	200	12.5
longer neck per 50 mm			
351 000	500	100	11.7
351 500	500	150	13.7
352 000	500	200	15.6
longer neck per 50 mm			
361 000	600	100	16
361 500	600	150	18.5
362 000	600	200	21
longer neck per 50 mm			
381 000	800	100	31
381 500	800	150	34
381 000	800	200	38
longer neck per 50 mm			

# seals

part no.	Silicone-seals transparent / 135° C FDA size (NW)	part no.	EPDM-seals black +75 /-20° C FDA size (NW)
310si	100	310ep	100
315si	150	315ep	150
320si	200	320ep	200
330si	300	330ep	300
340si	400	340ep	400
350si	500	350ep	500
360si	600	360ep	600
380si	800	380ep	800

part no.	Perbunan-seals black +100 / -30° C size (NW)	part no.	Viton-seals black +210 / -20° C size (NW)
310pe	100	310vi	100
315pe	150	315vi	150
320pe	200	320vi	200
330pe	300	330vi	300
340pe	400	340vi	400
350pe	500	350vi	500
360pe	600	360vi	600
380pe	800	380vi	800

 
 Archon Industries, Inc.
 tel: (845) 368-3600

 357 Spook Rock Road
 fax: (845) 368-3040
 Suffern, NY 10901 USA

### oval manhole cover 340x440

#### 4 bar @250° C; 5 bar @150° C; 6 bar @50° C

with/without EC type-examination acc to PED 97/23/EG with ASME-approval (optional)

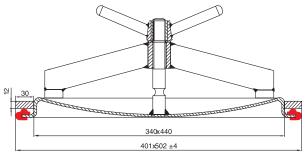


"loose" seal detail

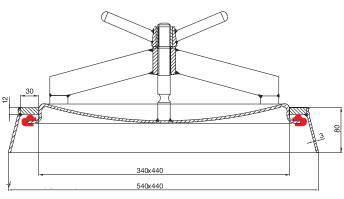


vulcanized seal detail

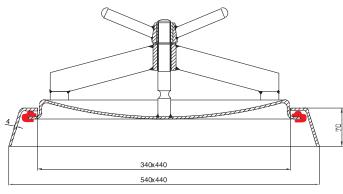




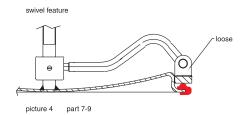
picture 1 parts 1-6



picture 2 parts 1-5 + 10



picture 3 parts 1-5 + 11



Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

# standard design

- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- · stainless steel t-handle with brass sleeve and brass washer
- natural rubber seal (dark red)

#### oval manhole cover 340x440

4 bar @250° C; 5 bar @150° C; 6 bar @50° C

# with ASME Certification

model #	description	weight in kg
101 406	manway cover (lid: 4 mm thick), with ring 30 x 12 mm without swivel feature (picture 1)	11.7
101 406K	manway cover (lid: 4 mm thick), with neck 3 x 80 mm unground, pickled, without swivel feature (picture 2)	13.0
101 409	manway cover (lid: 4 mm thick), with ring 30 x 12 mm with swivel feature (picture 1+ 4)	12.2
101 409K	manway cover (lid: 4 mm thick), with neck 3 x 80 mm unground, pickled, with swivel feature (picture 2 + 4)	14.0

## without ASME certification

model #	description	weight in kg
100 306	manway cover (lid: 3 mm thick), with ring 30 x 12 mm without swivel feature (picture 1)	11.0
100 306K	manway cover (lid: 3 mm thick), with neck 3 x 80 mm unground, pickled, without swivel feature (picture 2)	12.3
100 306P	manway cover (lid: 3 mm thick), with neck 4 x 70 mm unground, pickled, without swivel feature (picture 3)	12.0
100 309	manway cover (lid: 3 mm thick), with ring 30 x 12 mm with swivel feature (picture 1+ 4)	11.7
100 309K	manway cover (lid: 3 mm thick), with neck 3 x 80 mm unground, pickled, with swivel feature (picture 2 + 4)	14.0
100 309P	manway cover (lid: 3 mm thick), with neck $4 \times 70$ mm unground, pickled, with swivel feature (picture $3 + 4$ )	12.7

# seals and spare parts

part no.	seal material	temperature
102 000	natural rubber, food quality (dark red)	70° C / -50° C
102 0si	silicone seal, food quality (light red)	200° C / -60° C
102 0ep	EPDM-seal, food-quality (violet)	120° C / -50° C
102 0pe	perbunan (NBR) seal, food-quality (red)	90° C / -35° C
102 0vi	viton seal, food-quality (brown)	200° C / -15° C

part no.	description	
101 300	stainless steel oval manhole cover 340 x 440 mm	3 mm thick
100 400	including threaded bolt M22 x 170 mm long	4 mm thick
103 022	stainless steel t-handle M16 - M24	
104 340	stainless steel shackle 340 x 440 mm	
106 012	stainless steel ring 30 x 12	
112 312	stainless steel neck (ring 30 x 12), 3 mm thick x 80 mm long	
113 470	stainless steel pressed neck, 4 mm thick x 70 mm long	
107	steel swivel feature	

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040

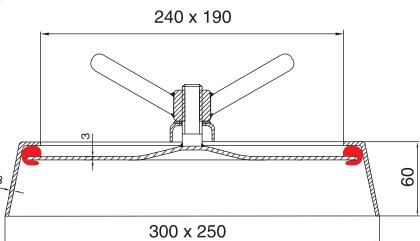
### oval handhole-cover

## for pressureless use



# standard design

- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- with stainless steel t-handles
- silicone seal (transparent)
- surface: unground, electropolished



model #	description	weight in kg
110 306	stainless steel oval handhole cover with silicone seal	4
120 306	stainless steel oval handhole cover with EPDM seal	4

## seals

part no.	description
321si	silicone seal
321ep	EPDM seal

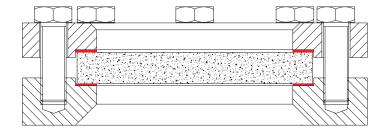
Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

# standard design

- wetted material: ASTM SA-240 316LSS; non-wetted: 304SS
- · with studs and hex nuts
- · with non asbestos gaskets
- · with tempered borosilicate glass

# options

- materials: HC-276, HC-22, HC-2000, Alloy 600, AL6XN Alloy, etc..
- · various technical standards
- different lens materials (tempered soda lime, quartz, vicor, plastic, etc..)
- · variety of seals materials



## sight glass

# weld pad type



model #	size mm	weight	glass pane
	(NW)	in kg	mm
KB 50 - 3"	50	5.5	Ø 100 x 15
KB 80 - 4"	80	6.0	Ø 125 x 15
KB 100 - 5"	100	11.0	Ø 150 x 20
KB 125 - 6"	125	14.0	Ø 175 x 20
KB 150 - 7"	150	21.0	Ø 200 x 20
KB 200 - 9"	200	32.0	Ø 250 x 25

# optional features

Ex-99 - Explosion Proof - UL approved light.

KA100 Light - Non hazardous stainless steel light.

HL Light - Non hazardous aluminium housing light.

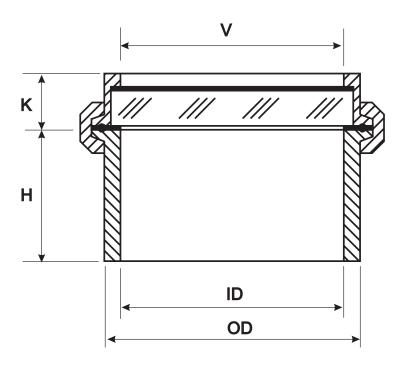
Window Wipers

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

## sanitary clamp-on sightglasses

## model SS-TC





model #	size	V	OD	ID	Н	K
SS/TC-1"	1"	7/8"	1.19"	0.87"	2.50"	-
SS/TC-1 1/2"	1-1/2"	1-1/8"	1.69"	1.37"	1.25"	3/4"
SS/TC-2"	2"	1-9/16"	2.23"	1.87"	1.25"	3/4"
SS/TC-2 1/2"	2-1/2"	2-1/16"	2.77"	2.37"	1.75"	3/4"
SS/TC-3"	3"	2-9/16"	3.31"	2.84"	1.25"	3/4"
SS/TC-4"	4"	3-9/16"	4.35"	3.84"	1.25"	3/4"
SS/TC-6"	6"	5-1/8"	6.50"	5.78"	1.75"	13/16"
SS/TC-8"	8"	7-5/16"	8.63"	7.78"	2.00"	7/8"

<sup>\*</sup>Dimensions of lower ferrule are for ASME Heavy Wall Ferrules, other ferrules are available

#### **Options:**

- available with or without weld ferrule
- clamp-on light
- window wiper
- different weld ferrule materials (304L SS, hastelloy, etc..)
- different weld ferrules types (L 14 AM7, 14 MPW, etc..)
- longer neck weld ferrules

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

# standard design

Model KA100 is a small, efficient, reliable lighting fixture for use in non-hazardous areas in food, dairy and pharmaceutical applications.

- All components are corrosion-resistant; the body and cap are polished 304SS
- All electrical components are housed outside of the vessel pressure boundary
- Unit can be furnished with or without an integral on-off pushbutton switch
- Unit can be furnished with a standard conduit connection or with a gland connector for flexible power cord
- Unit is available in either of 2 mounting configurations: KA100-B universal bracket mounting, and KA100-CL tri-clamp mounting

## application

- KA100-B: can be mounted to existing sightglasses provided by Archon, including Models KB, KBRF, KB-WN, KB-FT, SS, SSTC and some RLG-OB models, as well as those provided by other manufacturers. When used with sightglasses having viewing diameters of 4" and larger, the KA100-B provides exceptional illumination of the vessel interior while permitting clear unobstructed viewing through the same sightglass.
- KA100-CL: fits standard 2", 3" and 4" tri-clamp ferrule vessel ports and includes a tempered borosilicate glass lens with a pressure rating consistent with that of the standard tri-clamp pressure rating. The KA100-CL provides exceptional illumination of the vessel interior, without permitting viewing through the port.

### service

- Non-hazardous applications only
- UL listed for 120 volt with integral switch version

### electrical

- 120 VAC / 45, 60 and 75 watts
- 220 VAC / 30 and 40 watts
- 24 VDC / 20 watts

Can be custom designed for specific customer features

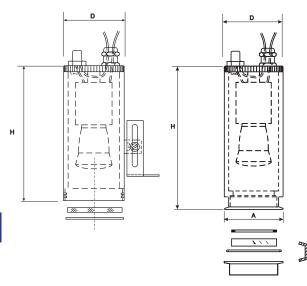
#### **KA Lighting Unit Dimensions / Rating**

model #	D	Α	н	voltage	watts
KA-100-B	2-1/2"	-	5-1/2"	120 AC 220 AC	45, 60, 75 40, 30
KA-100-CL2"	2-1/2"	2-1/2"	6"	120 AC 220 AC	45, 60, 75 40, 30
KA-100-CL3"	2-1/2"	3-5/8"	6-3/4"	120 AC 220 AC	45, 60, 75 40,30
KA-100-CL4"	2-1/2"	4-5/8"	7"	120 AC 220 AC	45, 60, 75 40, 30

### model KA-100 lighting units



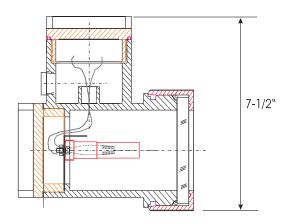


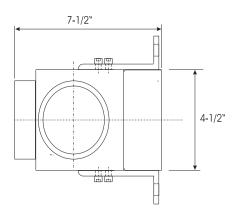


Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

### model Ex99 explosion-proof light







Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA tel: (845) 368-3600 fax: (845) 368-3040

info@ARCHONind.com

#### features

Model EX99 is an efficient and reliable lighting fixture for use in hazardous areas in for illuminating the interior of process vessels.

- all components are corrosion-resistant; the body and caps are black anodized cast aluminum
- all electrical components are housed outside of the vessel pressure boundary
- bulb can be replaced without disturbing the unit
- the body features separate compartments for bulb and for wiring terminals
- angle brackets allow for easy mounting to flanged sightglassses

## application

The EX99 can be used on:

- conventional sightglasses
- sanitary sightglasses
- · sight flow indicators
- rectangular and obround sightglasses
- windows in manways and access doors

# rating: UL 844 listed

 This fixture is suitable for use in the following locations as defined by the National Electrical Code:

class	division	groups
1	1	C and D
1	2	C and D

## temperature code

 This fixture is rated for Temperature Code T4A for maximum ambient temperature of 40 degrees

## lamp / electrical data

• Voltage/Wattage: 120 VAC only / 100 Watts

bulb type: halogen incandescent bulb no.: 100Q/CL/DC ESR

## sightglass mounting

· Archon sightglasses that allow lighting and viewing:

KB100, KB125, KB150, KB200 KB-RF6", KB-FT6", KB-WN6", KB-RF8", KB-FT8", KB-WN8"

• Archon sightglasses that allow lighting only, no viewing:

KB50, KB80 KB-RF4", KB-FT4", KB-WN4" SSTC-4"

# spare parts and fittings



# screws and various handles

part no.	description	dimension
2200 125	swing pin complete for pressure dome cover	M 16 x 125
2200 135	swing pin complete for pressure dome cover	M 16 x 135
2210	swing pin complete for 1-bar cover (TÜV-approved)	M 16 x 110
3200	swing pin complete for pressureless dome cover	M 12 x 135
3210	swing pin complete for 1-bar cover (non TÜV-approved)	M 12 x 110
2015 125	eye bolt for pressure dome cover	M 16 x 125
2015 135	eye bolt for pressure dome cover	M 16 x 135
2115	eye bolt for 1-bar cover (TÜV-approved)	M 16 x 110
3015 110	eye bolt for 1-bar cover (non TÜV-approved)	M 12 x 110
3015 135	eye bolt for 1-bar cover (non TÜV-approved)	M 12 x 135
2016	plastic handle M 16	M 16
3016	plastic handle M 12 with knurl-disc	M 12
2022	stainless steel handle M 16	M 16
3022	stainless steel handle M 12	M 12
2023	stainless steel t-handle	M 16 / M 12
2031	stainless steel collar nut	M 16 / M 12
2024	stainless steel blind hole nut	M 16

# spare parts, springs assists and locking pins

part no.	description
2025	extra charge for swivel feature for pressure covers
2011	swivel feature for pressure dome cover
2026	wedge for installation on the side of the vessel
2028	single spring assist with torsion springs
2030	single spring assist with disc springs
2028d	double spring assist with torsion springs (> NW 600)
2030d	double spring assist with disc springs (> NW 600)
2029	locking pin with plastic handle
2025k	hinge for pressure dome cover, complete with butt straps and bolt
20251k	hinge for 1-bar cover, complete with butt straps and bolt

Archon Industries, Inc. tel: (845) 368-3600 357 Spook Rock Road Suffern, NY 10901 USA

fax: (845) 368-3040

# safety grill and safety cross



# standard design

- materials: 304 SS
- surface, unground, pickled

# safety grill

part no.	description	size	dimension
30110	stainless steel safety grill	NW 100	wire 4 mm, 20 x 20
31510	stainless steel safety grill	NW 150	wire 4 mm, 20 x 20
32010	stainless steel safety grill	NW 200	wire 4 mm, 20 x 20
32510	stainless steel safety grill	NW 250	wire 4 mm, 20 x 20
33010	stainless steel safety grill	NW 300	wire 4 mm, 20 x 20
33510	stainless steel safety grill	NW 350	wire 4 mm, 20 x 20
34010	stainless steel safety grill	NW 400	wire 4 mm, 20 x 20
34510	stainless steel safety grill	NW 450	wire 4 mm, 20 x 20
35010	stainless steel safety grill	NW 500	wire 4 mm, 20 x 20
36010	stainless steel safety grill	NW 600	wire 4 mm, 20 x 20
37010	stainless steel safety grill	NW 700	wire 4 mm, 20 x 20
38010	stainless steel safety grill	NW 800	wire 4 mm, 20 x 20
39010	stainless steel safety grill	NW 900	wire 4 mm, 20 x 20
31010	stainless steel safety grill	NW 1000	wire 4 mm, 20 x 20

# safety cross

part no.	description	size	dimension
30111	stainless steel safety cross	NW 100	flat steel 30 x 12
31511	stainless steel safety cross	NW 150	flat steel 30 x 12
32011	stainless steel safety cross	NW 200	flat steel 30 x 12
32511	stainless steel safety cross	NW 250	flat steel 30 x 12
33011	stainless steel safety cross	NW 300	flat steel 30 x 12
33511	stainless steel safety cross	NW 350	flat steel 30 x 12
34011	stainless steel safety cross	NW 400	flat steel 30 x 12
34511	stainless steel safety cross	NW 450	flat steel 30 x 12
35011	stainless steel safety cross	NW 500	flat steel 30 x 12
36011	stainless steel safety cross	NW 600	flat steel 30 x 12
37011	stainless steel safety cross	NW 700	flat steel 30 x 12
38011	stainless steel safety cross	NW 800	flat steel 30 x 12
39011	stainless steel safety cross	NW 900	flat steel 30 x 12
31011	stainless steel safety cross	NW 1000	flat steel 30 x 12

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

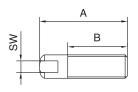
tel: (845) 368-3600 fax: (845) 368-3040

materials: 304 SS

• surface: unground, pickled

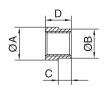


# threated spindle rolled



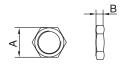
part no.	size	Α	В	with across flats	loading capacity	weight in kg (net)
406 00 12	1/2"	100	70	19	4	0.2
406 00 34	3/4"	100	70	22	6	0.4
406 01 00	1"	120	84	26	8	0.7
406 01 14	1 1/4"	150	112	36	15	1.5
406 01 12	1 1/2"	150	112	40	19	1.9

## collar socket



part no.	size	Α	В	С	D	weight in kg
416a 012	1/2"	35	29	13	27	0.1
416a 034	3/4"	40	32	14	30	0.2
406a 100	1"	45	38.5	17	35	0.2
406a 114	1 1/4"	56	48.5	19	40	0.3
406a 112	1 1/2"	63	53.5	24	50	0.4

# check nut



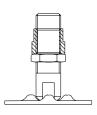
part no.	size	Α	В	weight in kg
406b 012	1/2"	32	8	0.1
406b 034	3/4"	36	9	0.2
406b 100	1"	41	11	0.2
406b 114	1 1/4"	50	12	0.2
406b 112	1 1/2"	60	15	0.2

# cup plate with securing dimples



part no.	size	Α	В	С	weight in kg
407 123	1"	120	3	32	0.3
407 120	1"	120	5	32	0.4
407 160	1 1/2"	160	8	50	1.2

# complete assembly



part no.	size	dimension of plate	weight in kg
416 012	1/2"	120 x 3 mm	0.7
416 034	3/4"	121 x 3 mm	1.1
406 100	1"	120 x 5 mm	1.5
406 101	1"	160 x 8 mm	2.3
406 114	1 1/4"	161 x 8 mm	3.2
406 112	1 1/2"	162 x 8 mm	3.7

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040

# notes

Archon Industries, Inc. 357 Spook Rock Road Suffern, NY 10901 USA

tel: (845) 368-3600 fax: (845) 368-3040

# notes

