



16601072
Edition 4
May 2009

Air Angle Wrench and Nut Runner

QA6 and QA8 Series

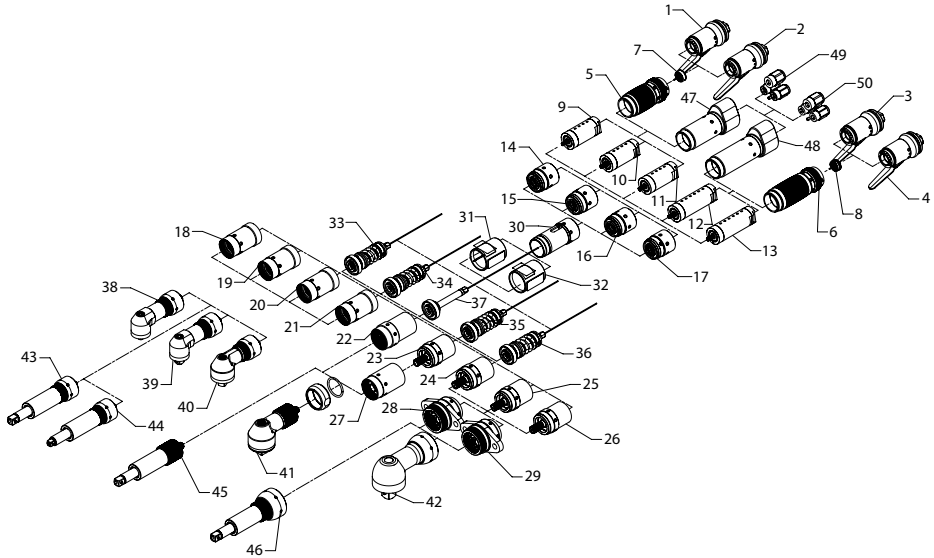
Parts Information



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 **Ingersoll Rand**

Module Exploded Diagram



(Dwg. 45503877)

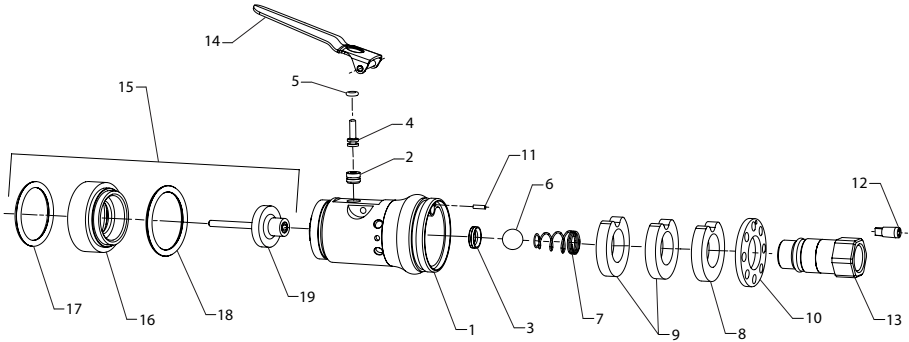
Module Parts List

Item	Part Description	Model Identification (Description)	Part Number
1	Throttle Housing	QA6AAL{ } N { }, QA6ASL{ } N { }	QA6-NPT-A231
2	Throttle Housing	QA6AAL{ } B { }, QA6ASL{ } B { }	QA6-BSP-A231
3	Throttle Housing	QA8AAL{ } N { }, QA8ASL{ } N { }	QA8-NPT-A231
4	Throttle Housing	QA8AAL{ } B { }, QA8ASL{ } B { }	QA8-BSP-A231
5	Motor Housing	QA6 { } L { }	QA6-A40
6	Motor Housing	QA8 { } L { }	QA8-A40
7	Valve	QA6 { } L { }	QA6-A159
8	Valve	QA8 { } L { }	QA8-A159
9	Motor	QA6AA { } 090 { }, QA6AS { } 055 { }	QA6-A53-8
10	Motor	QA6AA { } 055 { }, QA6AA { } 070 { }, QA6AS { } 030 { }, QA6AS { } 040 { }	QA6-A53-10
11	Motor	QA6AA { } 030 { }, QA6AA { } 040 { }, QA6AS { } 025 { }	QA6-A53-11
12	Motor	QA8AA { } 090 { }, QA8AA { } 115 { }, QA8AA { } 150 { }, QA8AA { } 225 { }, QA8AS { } 040 { }, QA8AS { } 070 { }, QA8AS { } 090 { }, QA8AS { } 115 { }, QA8AS { } 180 { }	QA8-A53-10
13	Motor	QA8AA { } 040 { }, QA8AA { } 055 { }, QA8AA { } 070 { }, QA8AA { } 200 { }, QA8AS { } 055 { }, QA8AS { } 150 { }	QA8-A53-11
14	1st Stage Gear	QA6AA { } 090 { }, QA6AS { } 055 { }	132023
15	1st Stage Gear	QA6AA { } 030 { }, QA6AA { } 040 { }, QA6AS { } 025 { }, QA8AA { } 040 { }, QA8AA { } 055 { }, QA8AA { } 070 { }, QA8AA { } 200 { }, QA8AS { } 055 { }, QA8AS { } 150 { }	132022
16	1st Stage Gear	QA6AA { } 055 { }, QA6AA { } 070 { }, QA6AS { } 030 { }, QA6AS { } 040 { }, QA8AA { } 090 { }, QA8AA { } 115 { }, QA8AA { } 225 { }, QA8AS { } 040 { }, QA8AS { } 070 { }, QA8AS { } 180 { }	132020
17	1st Stage Gear	QA8AA { } 150 { }, QA8AS { } 090 { }, QA8AS { } 115 { }	132021
18	2nd Stage Gear	QA6AA { } 030 { }, QA6AS { } 025 { }, QA6AS { } 030 { }, QA8AA { } 040 { }, QA8AS { } 040 { }	QA6-M37-3P33
19	2nd Stage Gear	QA6AA { } 040 { }, QA6AS { } 040 { }, QA8AA { } 055 { }, QA8AA { } 090 { }	QA6-M37-4P50
20	2nd Stage Gear	QA6AA { } 055 { }, QA6AA { } 070 { }, QA6AA { } 090 { }, QA6AS { } 055 { }, QA8AS { } 055 { }	QA6-M37-5P08
21	2nd Stage Gear	QA8AA { } 070 { }	QA6-M37-4P27

Item	Part Description	Model Identification (Description)	Part Number
22	2nd Stage Gear	QA8AA {} 115 {}, QA8AS {} 070 {}	QA8-M37-5P64
23	2nd Stage Gear	QA8AA {} 150 {}, QA8AS {} 090 {}	QA8-M37-3P68
24	2nd Stage Gear	QA8AA {} 200 {}	QA8-M37-3P32-1
25	2nd Stage Gear	QA8AA {} 225 {}, QA8AS {} 150 {}, QA8AS {} 180 {}	QA8-M37-3P32-2
26	2nd Stage Gear	QA8AS {} 115 {}	QA8-M37-4P64
27	3rd Stage Gear	QA8AA {} 150 {}, QA8AS {} 090 {}	QA8-M37-4P29-1
28	3rd Stage Gear	QA8AA {} 225 {}, QA8AS {} 150 {}, QA8AS {} 180 {}	QA8-M37-4P29-2
29	3rd Stage Gear	QA8AA {} 200 {}, QA8AS {} 115 {}	QA8-M37-4P067
30	Clutch Housing	QA6 {}, QA8 {}	QA6-580
31	Clutch Cover	QA6 {}	QA6-A415
32	Clutch Cover	QA8 {}	QA8-A415
33	Clutch (Yellow)	QA6AA {} 090 {}, QA6AS {} 055 {}, QA8AA {} 040 {}, QA8AA {} 055 {}, QA8AA {} 070 {}, QA8AA {} 200 {}, QA8AS {} 055 {}, QA8AS {} 150 {},	QA8L-A579
34	Clutch (Green)	QA6AA {} 055 {}, QA6AA {} 070 {}, QA6AS {} 030 {}, QA6AS {} 040 {}	QA6H-A579
35	Clutch (Blue)	QA6AA {} 030 {}, QA6AA {} 040 {}, QA6AS {} 025 {}, QA8AA {} 150 {}, QA8AS {} 090 {}, QA8AS {} 115 {}	132015
36	Clutch (Red)	QA8AA {} 090 {}, QA8AA {} 115 {}, QA8AA {} 225 {}, QA8AS {} 040 {}, QA8AS {} 070 {}, QA8AS {} 180 {}	QA8H-A579
37	Direct Drive	QA6A {} D {}, QA8A {} D {}	QA6D-A579
38	Anglehead	QA6AA {} 030 {}, QA6AA {} 040 {}, QA8AA {} 040 {}	QA6-R35S06-A550
39	Anglehead	QA6AA {} 040 {}, QA6AA {} 055 {}, QA8AA {} 040 {}, QA8AA {} 055 {}	QA6-R35S08-A550
40	Anglehead	QA6AA {} 070 {}, QA6AA {} 090 {}, QA8AA {} 070 {}, QA8AA {} 090 {}	QA6-R43S08-A550
41	Anglehead	QA8AA {} 115 {}, QA8AA {} 150 {}	GAA658
42	Anglehead	QA8AA {} 200 {}, QA8AA {} 225 {}	AA16512
43	Spindle	QA6AS {} 025 {}, QA6AS {} 030 {}, QA6AS {} 040 {}, QA8AS {} 040 {}	QA6456
44	Spindle	QA6AS {} 055 {}, QA8AS {} 040 {}, QA8AS {} 055 {}	QA6458, QA6658, QA6858
45	Spindle	QA8AS {} 070 {}, QA8AS {} 090 {}	GE458, GE658, GE858
46	Spindle	QA8AS {} 115 {}, QA8AS {} 150 {}, QA8AS {} 180 {}	160E458, 160E658, 160E858
47	Remote Housing	QA6ASR {}	QA6-R-A40
48	Remote Housing	QA8ASR {}	QA8-R-A40
49	Remote Housing Inlet Kit (Inch)	QA6ASR {}, QA8ASR {}	QA6-RB-K465
50	Remote Housing Inlet Kit (Metric)	QA6ASR {}, QA8ASR {}	QA6-RN-K465
51	Coupling Nut	QA8AA {} 115 {}, QA8AA {} 150 {}, QA8AS {} 70 {}, QA8AS {} 90 {}	DAA4-27
52	Retaining Ring	QA8AA {} 115 {}, QA8AA {} 150 {}, QA8AS {} 70 {}, QA8AS {} 90 {}	DAA4-29
53	Flange	QA6AA {} 030 {}, QA6AA {} 040 {}, QA6AA {} 055 {}, QA6AA {} 070 {}, QA6AA {} 090 {}, QA8AA {} 040 {}, QA8AA {} 055 {}, QA8AA {} 070 {}, QA8AA {} 090 {}, QA6AS {} 025 {}, QA6AS {} 030 {}, QA6AS {} 040 {}, QA6AS {} 055 {}, QA8AS {} 040 {}, QA8AS {} 055 {}	15E4-K48
54	Flange	QA8AA {} 115 {}, QA8AA {} 150 {}, QA8AS {} 70 {}, QA8AS {} 90 {}	GEM120-K48
55	Spacer	QA8AS {} 115 {}, QA8AS {} 150 {}, QA8AS {} 180 {}	QA8S-442
≠ 56	Spacer	QA8AA {} 200 {}, QA8AA {} 225 {}	QA8A-442

† Item not illustrated.

Throttle Housing Module Exploded Diagram



(Dwg. 16589228)

Throttle Housing Module Parts List

Item	Part Description	Part Number			
		QA6-NPT-A231	QA6-BSP-A231	QA8-NPT-A231	QA8-BSP-A231
	Throttle Housing Module	QA6-NPT-A231	QA6-BSP-A231	QA8-NPT-A231	QA8-BSP-A231
1	Throttle Housing	---	---	---	---
2	Throttle Bushing	---	---	---	---
3*	Ball Seat 12 mm	---	---	---	---
4*	Throttle Pin	---	---	---	---
5*	O-Ring 3.4 mm	---	---	---	---
6*	Ball 12 mm	---	---	---	---
7*	Ball Spring	---	---	---	---
8*	Muffler Black	QA8-311 (1)	QA8-311 (1)	QA8-311 (2)	QA8-311 (2)
9*	Muffler White	QA6-311 (2)	QA6-311 (2)		
10*	Diffuser Plate	---	---	---	---
11*	Pin 2 mm	---	---	---	---
12**	Chip Holder Assembly	QA4-A528	QA4-A528	QA4-A528	QA4-A528
‡	Memory Chip	---	---	---	---
‡	Chip Holder	---	---	---	---
	Inlet Bushing Assembly	QA6-NPT-A465	QA6-BSP-A465	QA6-NPT-A465	QA6-BSP-A465
13	Inlet Bushing	---	---	---	---
‡*	O-Ring 11 mm	---	---	---	---
‡*	Screen	---	---	---	---
	Lever Assembly	QA6-A93	QA6-A93	QA6-A93	QA6-A93
14	Lever	---	---	---	---
‡*	Pin 3.5 mm	---	---	---	---
15	Valve Assembly	QA6-A159	QA6-A159	QA8-A159	QA8-A159
16	Valve Seat	---	---	---	---
17*	O-Ring 15.6 mm	---	---	---	---
18*	O-Ring 17.17 mm	---	---	---	---
19*	Shut Off Valve	131128	131128	131128	131128

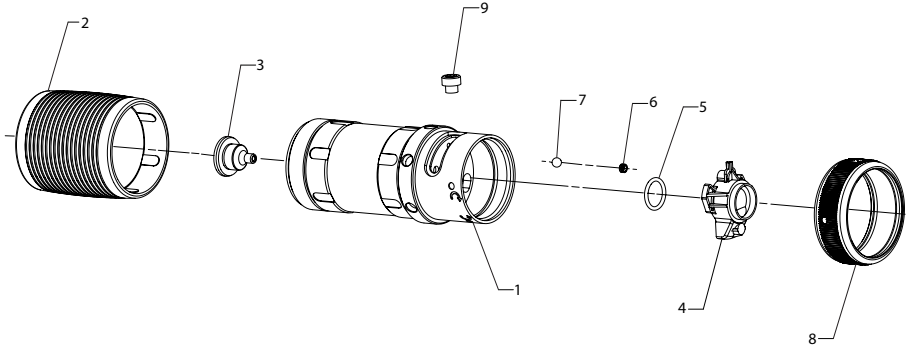
‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

* Part of Housing Tune Up kit # QA6-1-K40

** Optional

Motor Housing Module Exploded Diagram



(Dwg. 45504602)

Motor Housing Module Parts List

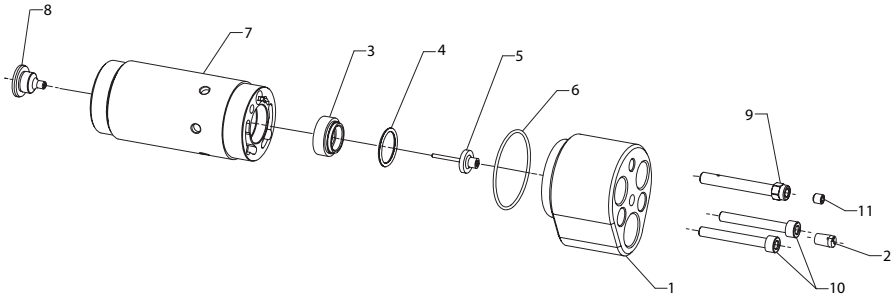
Item	Part Description	Part Number	
		QA6-A40	QA8-A40
	Motor Housing Assembly	QA6-A40	QA8-A40
1	Motor Housing	---	---
2	Grip	QA6-145	QA8-145
3	Valve Guide	---	---
4	Reverse Valve	QA6-329	QA6-329
5*	O-Ring 14.8 mm	---	---
6*	Spring 3.6 mm	---	---
7*	Ball	---	---
	Reverse Ring Assembly	QA6-A273	QA6-A273
8	Reverse Ring	---	---
‡ *	O-Ring 38 mm	--- (2)	--- (2)
9	Reverse Screw M8	131069	131069

‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

* Part of Housing Tune Up kit # QA6-1-K40

Remote Housing Module Exploded Diagram



(Dwg. 45500816)

Remote Housing Module Parts List

Item	Part Description	Part Number	
		QA6-R-A40	QA8-R-A40
	Remote Housing Assembly		
1	Remote Start Housing	---	---
2**	Chip Holder Assembly	QA4-A528	QA4-A528
‡	Memory Chip	---	---
‡	Chip Holder	---	---
3	Valve Seat	---	---
	Remote Housing Tune Up kit	QA6-1R-K40	QA8-1-K40
4*	O-Ring 15.6 mm	---	---
5*	Shut Off Valve	131128	131128
6*	O-Ring 40 mm	---	---
7	Remote Motor Housing	---	---
8	Valve Guide	---	---
9	Remote Screw M6	QA6-439	QA6-439
10	Screw M5	QA6-439-1 (2)	QA6-439-1 (2)
11	Set Screw M5	---	---

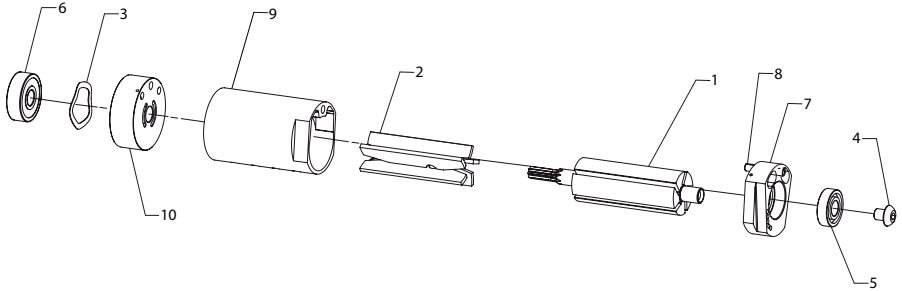
‡ Item not illustrated

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

* Part of Remote Housing Tune Up kit # QA6-1R-K40

** Optional

Motor Module Exploded Diagram



(Dwg. 80221583)

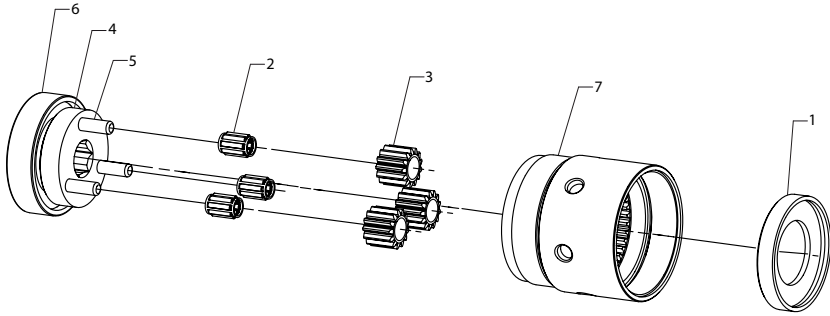
Motor Module Parts List

Item	Part Description	Part Number				
		QA6-A53-8	QA6-A53-10	QA6-A53-11	QA8-A53-10	QA8-A53-11
	Motor Assembly	QA6-A53-8	QA6-A53-10	QA6-A53-11	QA8-A53-10	QA8-A53-11
1	Rotor	QA6-53-8	QA6-53-10	QA6-53-11	QA8-53-10	QA8-53-11
	Vane Pack	QA6-42-5	QA6-42-5	QA6-42-5	QA8-42-5	QA8-42-5
2	Vane	--- (5)	--- (5)	--- (5)	--- (5)	--- (5)
	Motor Kit	QA6-1-K53	QA6-1-K53	QA6-1-K53	QA6-1-K53	QA6-1-K53
3	Wave Washer	---	---	---	---	---
4	Adjustment Screw M5	---	---	---	---	---
5	Rear End Bearing 17x7x5	---	---	---	---	---
6	Front End Bearing 22x7x7	---	---	---	---	---
	Rear Endplate Assembly	QA6-A12	QA6-A12	QA6-A12	QA6-A12	QA6-A12
7	Rear Endplate	---	---	---	---	---
8	Roll Pin 19 mm	Y178-41	Y178-41	Y178-41	Y178-41	Y178-41
	Cylinder Assembly	QA6-A3	QA6-A3	QA6-A3	QA8-A3	QA8-A3
9	Cylinder	---	---	---	---	---
‡	Roll Pin	Y178-191	Y178-191	Y178-191	Y178-191	Y178-191
10	Front Endplate	QA6-11	QA6-11	QA6-11	QA6-11	QA6-11

‡ Item not illustrated

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1)

First Stage Exploded Diagram



(Dwg. 53449310)

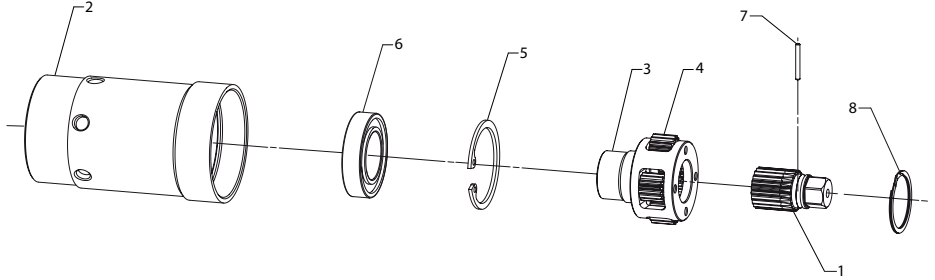
First Stage Parts List

Item	Part Description	Part Number			
		132023	132022	132020	132021
	1st Stage Gear Assembly	132023	132022	132020	132021
1	Front Cap	132004	132004	132004	132004
	Needle Roller Bearing Kit	QA6-1-K24	QA6-1-K24	QA6-1-K24	QA6-1-K24
2	Needle Roller Bearing	--- (3)	--- (3)	--- (3)	--- (3)
	Planet Gear Kit	QA6-K10-29	QA6-K10-25	QA8-K10-29	QA8-K10-13
3	Planet Gear	--- (3)	--- (3)	--- (3)	--- (3)
	Spindle Assembly	QA6-A8-9P50	QA6-A8-6P54	QA6-A8-7P80	QA8-A8-3P86
4	Carrier	---	---	---	---
5	Gear Pins	--- (3)	--- (3)	--- (3)	--- (3)
6	Bearing 37x20x9	119277	119277	119277	119277
#	Circlip	126293	126293	126293	126293
7	Gear Case	132011	132013	132011	132011
8	Pinion				QA6-17-14

Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Second Stage Exploded Diagram



(Dwg. 80221716)

Second Stage Parts List

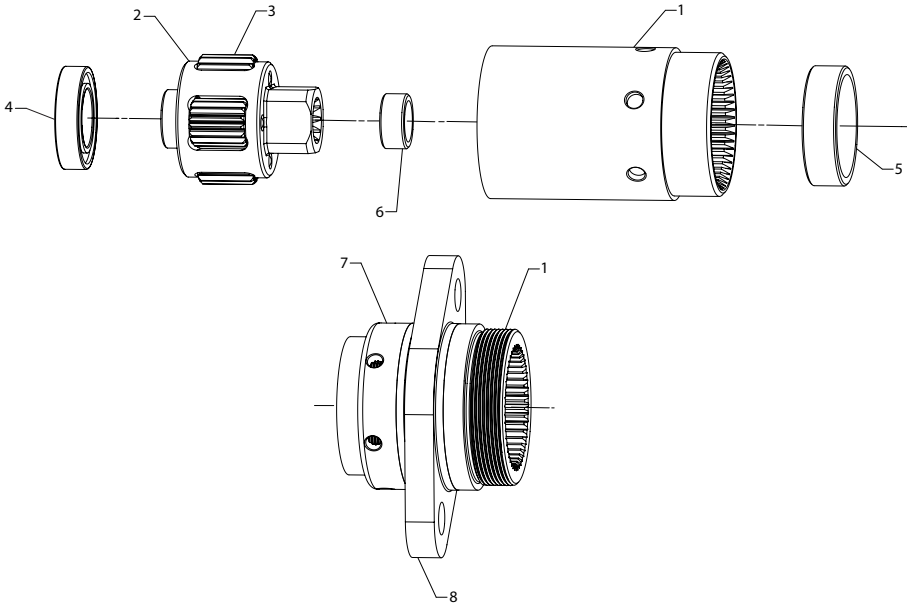
Item	Part Description	Part Number				
		QA6-M37-3P33	QA6-M37-4P50	QA6-M37-5P08	QA6-M37-4P27	QA8-M37-5P64
	2nd Stage Gear Assembly	QA6-M37-3P33	QA6-M37-4P50	QA6-M37-5P08	QA6-M37-4P27	QA8-M37-5P64
1	Sun	QA6-17-3P33	QA6-17-4P50	QA6-17-5P08	QA6-17-4P27	QA8-17-5P64
2	Gear Case	QA6-1-37	QA6-1-37	QA6-1-37	QA6-1-37	QA8-22-37
	Spindle Assembly	QA6-A8-3P33	QA6-A8-4P50	QA6-A8-5P08	QA6-A8-4P27	QA8-A8-5P64
3	Carrier	---	---	---	---	---
4	Planet	--- (4)	--- (4)	--- (4)	--- (4)	--- (3)
‡	Bearing	--- (4)	--- (4)	--- (4)	--- (4)	--- (6)
‡	Planet Pin	--- (4)	--- (4)	--- (4)	--- (4)	--- (3)
5	Snap Ring	161M13N30	161M13N30	161M13N30	161M13N30	
6	Bearing	R1602-510	R1602-510	R1602-510	R1602-510	R38P-606
7	Pin	QA6-15	QA6-15	QA6-15	QA6-15	QA6-15
8	Retaining Ring	QA8-701	QA8-701	QA8-701	QA8-701	QA8-701
9	Spacer					

Item	Part Description	Part Number			
		QA8-M37-3P68	QA8-M37-3P32-1	QA8-M37-3P32-2	QA8-M37-4P64
	2nd Stage Gear Assembly	QA8-M37-3P68	QA8-M37-3P32-1	QA8-M37-3P32-2	QA8-M37-4P64
1	Sun	QA8-17-3P68	QA6-17-5P08	QA6-17-5P08	QA6-17-5P08
2	Gear Case	QA8-22-37	QA8-22-37	QA8-22-37	QA8-22-37
	Spindle Assembly	GEA240-A216	QA8-3P32-32-216	QA8-3P32-31-216	QA8-4P64-32-216
3	Carrier	---	---	---	---
4	Planet	--- (3)	--- (3)	--- (3)	--- (3)
‡	Bearing	--- (6)	--- (6)	--- (6)	--- (6)
‡	Planet Pin	--- (3)	--- (3)	--- (3)	--- (3)
5	Snap Ring				
6	Bearing				
7	Pin	QA6-15	QA6-15	QA6-15	QA6-15
8	Retaining Ring	QA8-701	QA8-701	QA8-701	QA8-701
9	Spacer	GEA240-80	GEA240-80	GEA240-80	GEA240-80

‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Third Stage Exploded Diagram



(Dwg. 80223340)

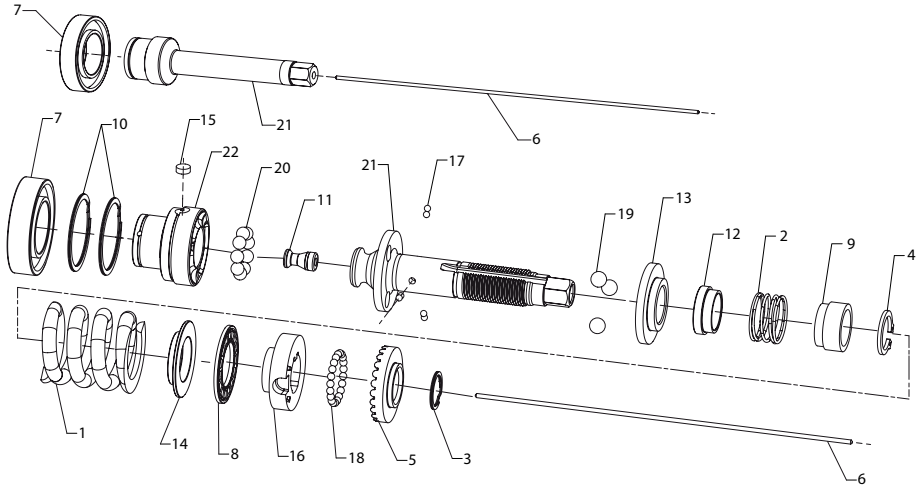
Third Stage Parts List

Item	Part Description	Part Number		
	3rd Stage Gear Assembly	QA8-M37-4P29-1	QA8-M37-4P29-2	QA8-M37-4P067
1	Gear Case	QA8-31-37	QA8-32-37	QA8-32-37
	Spindle Assembly	QA8-A8-4P29-1	QA8-A8-4P29-2	QA8-A8-4P067
2	Carrier	---	---	---
3	Planet	--- (4)	--- (4)	--- (4)
‡	Bearing	--- (136)	--- (136)	--- (136)
‡	Planet Pin	--- (4)	--- (4)	--- (4)
‡	Spacer	--- (12)	--- (12)	--- (12)
4	Bearing	R1602-510	R1602-510	R1602-510
5	Spacer	QA8-208		
6	Spacer	QA8-442		
7	Coupling Nut		QA8-47	QA8-47
8	Flange		QA8-48	QA8-48

‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Clutch & Direct Drive Assembly Exploded Diagram



(Dwg. 80227549)

Clutch & Direct Drive Assembly Parts List

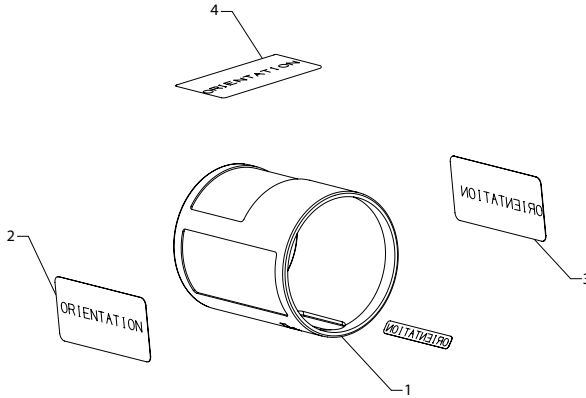
Item	Part Description	Part Number				
		QA8H-A579 ++	QA8L-A579 ++	QA6H-A579 ++	132015 ++	QA6D-A579 ++
	Clutch Assembly					
1	Clutch Spring	QA8-H-583	QA8-L-583	QA6-H-583	QA6-L-583	
2	Collar Spring	132066	132066	132066	132066	
3	Retaining Ring	182A13-CXRSN50	182A13-CXRSN50	182A13-CXRSN50	182A13-CXRSN50	
4	Retaining Ring	Y142-20	Y142-20	Y142-20	Y142-20	
5	Adjustment Nut	132074	132074	132074	132074	
6	Push Rod	132017	132017	132017	132017	132017
7	Bearing	119277	119277	119277	119277	119277
8	Bearing	132059	132059	132059	132059	
9	Spring Guide	132063	132063	132063	132063	
10	Circlip	181A13-CXRS106 (2)	181A13-CXRS106 (2)	181A13-CXRS106 (2)	181A13-CXRS106 (2)	
11	Plunger	132061	132061	132061	132061	
12	Shutoff Collar	132062	132062	132062	132062	
13	Lower Jaw	132057	132057	132057	132057	
14	Spring Guide	132060	132060	132060	132060	
15	Plug	126297	126297	126297	126297	
16	Nut Lock Washer	132058	132058	132058	132058	
	Ball Kit	QA6-1-K581	QA6-1-K581	QA6-1-K581	QA6-1-K581	
17	Plunger Ball 2.38 mm	--- (6)	--- (6)	--- (6)	--- (6)	
18	Ball 2.78 mm	--- (21)	--- (21)	--- (21)	--- (21)	
19	Clutch Ball 6 mm	--- (3)	--- (3)	--- (3)	--- (3)	
20	Ball 5 mm	--- (10)	--- (10)	--- (10)	--- (10)	
	Driver Assembly	QA6-A581	QA6-A581	QA6-A581	QA6-A581	
20	Ball 5 mm	--- (10)	--- (10)	--- (10)	--- (10)	
21	Driver Shaft	QA6-581*	QA6-581*	QA6-581*	QA6-581*	QA6-590
22	Upper Driven Jaw	QA6-586*	QA6-586*	QA6-586*	QA6-586*	

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

* If tool serial number is before W109F....., order Driver Assembly P/N QA6-A581.

++ Recommend replacing Pin P/N QA6-15 and Retaining Ring P/N QA8-701 when ordering clutch assembly or direct drive module.

Clutch Cover Assembly Exploded Diagram



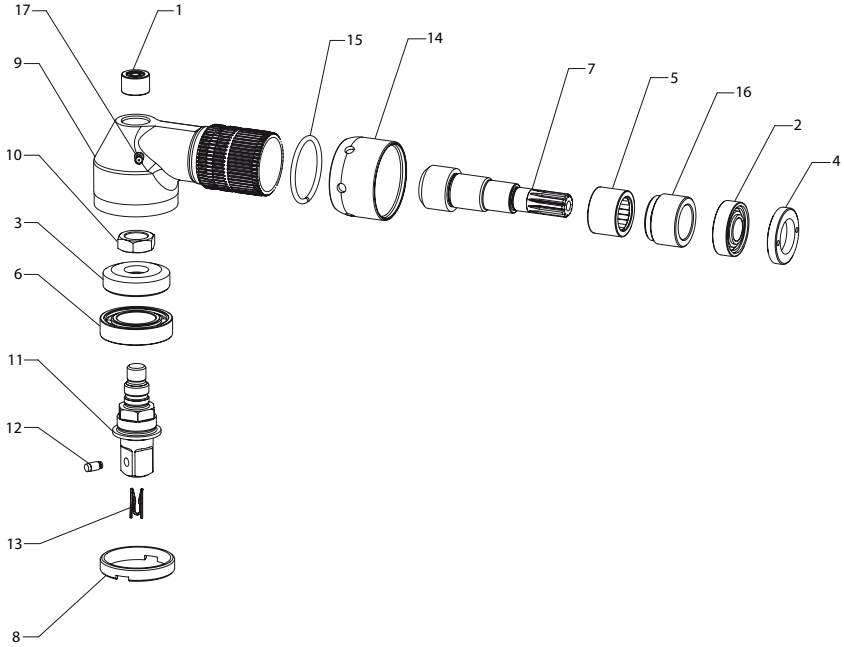
(Dwg. 45504644)

Clutch Cover Assembly Exploded Diagram

Item	Part Description	Part Number	
		QA6-A415	QA8-A415
	Clutch Cover Assembly		
1	Clutch Cover	---	---
2	Nameplate	QA6-301	QA6-301
3	Information Label	QA6-299	QA8-299
4	Warning Label	Warning-27-99	Warning-27-99

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Angle Head Assembly Exploded Diagram



(Dwg. 80223589)

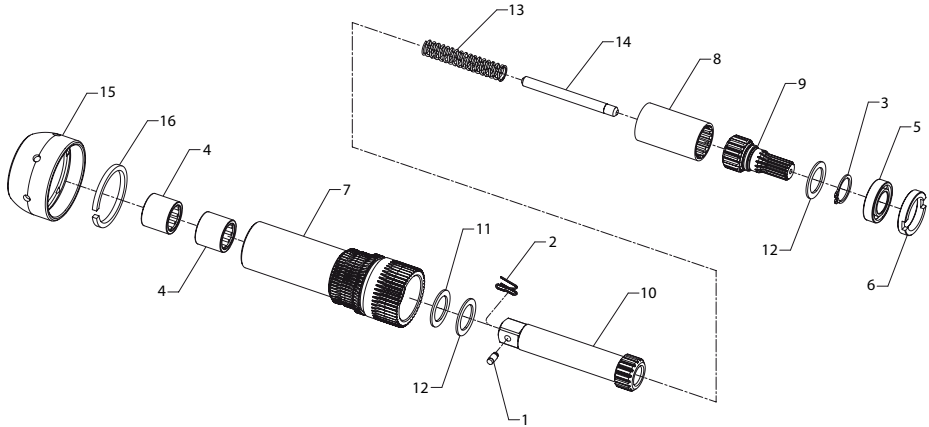
Angle Head Assembly Parts List

Item	Part Description	Part Number				
		QA6-R35S06-A550	QA6-R35S08-A550	QA6-R43S08-A550	GAA6S8	AA16S12
1	Needle Bearing	---	---	---	---	---
‡	Washer	---	---	---	---	---
2	Bearing	---	---	---	---	---
3	Bevel Gear	---	---	---	---	---
4	Nut	---	---	---	---	---
‡	Washer	---	---	---	---	---
5	Needle Bearing	---	---	---	---	---
6	Bearing	---	---	---	---	---
7	Pinion	---	---	---	---	---
8	Retaining Nut	---	---	---	---	---
9	Angle Housing	---	---	---	---	---
10	Clamp Nut	---	---	---	---	---
11	Spindle	---	---	---	---	---
12	Pin	131617	132048	804-716	804-716	---
13	Spring	124491	124492	5UHD-718	5UHD-718	---
14	Coupling Nut	15E2-27	15E2-27	15E2-27	DAA4-27	---
15	Coupling Nut Retainer	GEA2-29	GEA2-29	GEA2-29	DAA4-29	---
16	Spacer	---	---	---	---	---
17	Grease Fitting	---	---	---	---	---

‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Float Spindle Assembly Exploded Diagram



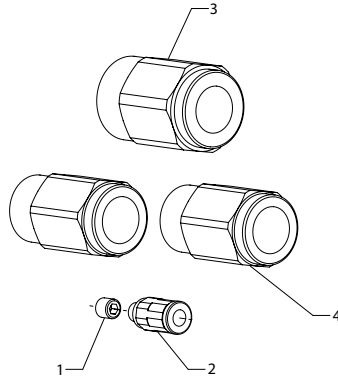
(Dwg. 80123888)

Float Spindle Assembly Parts List

Item	Part Description	Part Number			
	Spindle Assembly	QA6456 (3/8" Sq. Drive & 4" Long Shank)	QA6458 (1/2" Sq. Drive & 4" Long Shank), QA6658 (1/2" Sq. Drive & 6" Long Shank), QA6858 (1/2" Sq. Drive & 8" Long Shank)	GE458 (1/2" Sq. Drive & 4" Long Shank), GE658 (1/2" Sq. Drive & 6" Long Shank), GE858 (1/2" Sq. Drive & 8" Long Shank)	160E458 (1/2" Sq. Drive & 4" Long Shank), 160E658 (1/2" Sq. Drive & 6" Long Shank), 160E858 (1/2" Sq. Drive & 8" Long Shank)
1	Retainer	5020-716	804-716	804-716	804-716
2	Spring	401-718	5UHD-718	5UHD-718	5UHD-718
3	Retaining Ring	---	---	---	---
4	Needle Bearing	--- (2)	--- (2)	--- (2)	--- (2)
5	Bearing	---	---	---	---
6	Retaining Nut	---	---	---	---
7	Spindle Housing	---	---	---	---
8	Coupler	---	---	---	---
9	Drive Spindle	---	---	---	---
10	Spindle	---	---	---	---
11	Washer	---	---	---	---
12	Washer	--- (2)	--- (2)	--- (2)	--- (2)
13	Spring	---	---	---	---
14	Pin	---	---	---	---
15	Coupling Nut	15E2-27	15E2-27	DAA4-27	GEA240-27
16	Coupling Nut Retainer	GEA2-29	GEA2-29	DAA4-29	160E4-29

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Remote Housing Inlet Kit Exploded Diagram

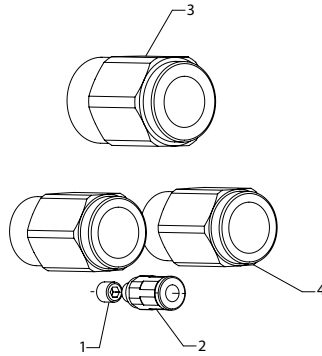


(Dwg. 45500832)

Remote Housing Inlet Kit Parts List

Item	Parts Description	Part Number
	Remote Housing Inlet Kit	QA6-RB-K465 ++
1	Set Screw, M5	---
2	Tube Fitting	---
3	Tube Fitting	---
4	Tube Fitting	---

++ For Models QA6ASR {} NF {}, QA8ASR {} NF {}
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1)



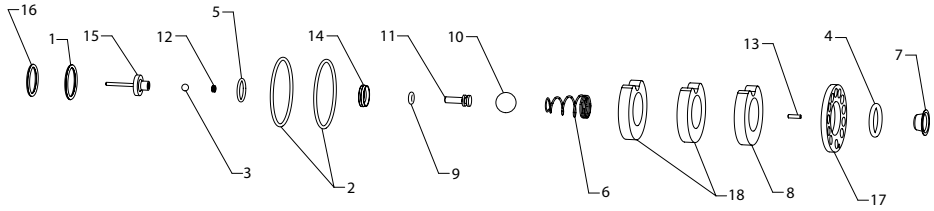
(Dwg. 45500840)

Remote Housing Inlet Kit Parts List

Item	Parts Description	Part Number
	Remote Housing Inlet Kit	QA6-RN-K465 ++
1	Set Screw, M5	---
2	Tube Fitting	---
3	Tube Fitting	---
4	Tube Fitting	---

++ For Models QA6ASR {} BF {}, QA8ASR {} BF {}
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Housing Tune-up Kit Exploded Diagram



(Dwg. 45514288)

Housing Tune-up Kit Parts List

Item	Parts Description	Part Number	
		QA6-1-K40 *	QA8-1-K40 **
	Housing Tune-up Kit		
1	O-Ring 17.17 mm	---	---
2	O-Ring 38.1 mm	--- (2)	--- (2)
3	Reverse Valve Ball	---	---
4	O-Ring 14.8 mm	---	---
5	O-Ring 11 mm	---	---
6	Ball Spring	---	---
7	Screen	---	---
8	Muffler (Black)	QA8-311 (1)	QA8-311 (2)
9	O-Ring 3.4 mm	---	---
10	Ball 12mm	---	---
11	Throttle Pin	---	---
12	Reverse Valve Spring	---	---
13	Pin 2 mm	---	---
14	Ball Seat 12mm	---	---
15	Shut-Off Valve	131128	131128
16	O-Ring 15.6 mm	---	---
17	Diffuser Plate	---	---
18	Muffler (White)	QA6-311 (2)	
‡ 19	O-Ring 40 mm		

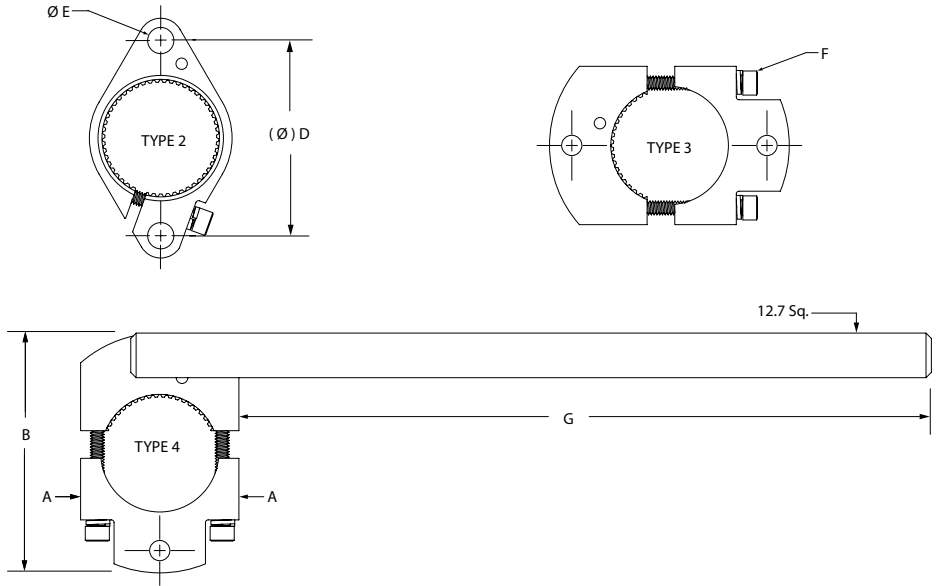
‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

* Kit for model QA6AAL {}, QA6ASL {}

** Kit for model QA8AAL {}, QA8ASL {}

Flange Mounting Options Diagram



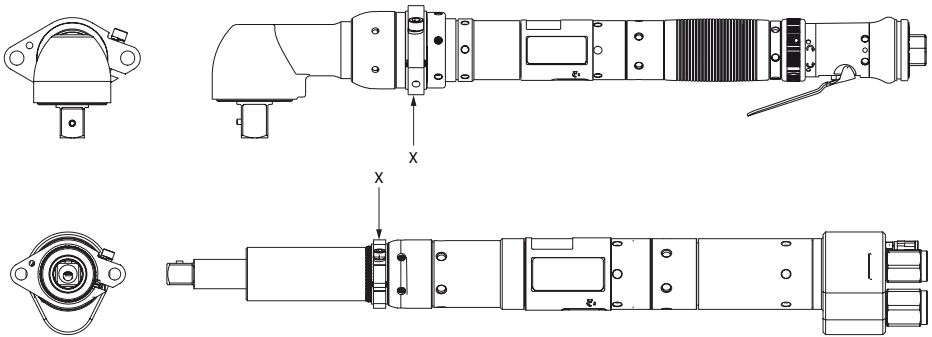
(Dwg. 16585457)

Flange Mounting Options Parts List

Part Number	Part Description	Flange or Reaction Bar	Mounting Location	For Models	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	G (mm)
15E4-K48	Full Spline	2	X	QA6 {} QA8AA {} 040 {} QA8AA {} 055 {} QA8AA {} 070 {} QA8AA {} 090 {} QA8AS {} 040 {} QA8AS {} 055 {}		40.64		55.58	7.14	8-32 UNC-2A	---
GEA4-K48	Work Station	3	X	QA6 {} QA8AA {} 040 {} QA8AA {} 055 {} QA8AA {} 070 {} QA8AA {} 090 {} QA8AS {} 040 {} QA8AS {} 055 {}		68.28		55.58	7.14	8-32 UNC-2A	---
GEA15-K48	Reaction Bar	4	X	QA6 {} QA8AAL {} 040 {} QA8AAL {} 055 {} QA8AAL {} 070 {} QA8AAL {} 090 {} QA8ASL {} 040 {} QA8ASL {} 055 {}		68.28		55.58	7.14	8-32 UNC-2A	274.0
GEM120-K48	Full Spline	2	X	QA8AA {} 115 {} QA8AA {} 150 {} QA8AS {} 070 {} QA8AS {} 090 {} QA8AS {} 115 {} QA8AS {} 150 {} QA8AS {} 180 {}	85.60	54.00	9.525	66.65	10.40	10-32 UNC-2A	---

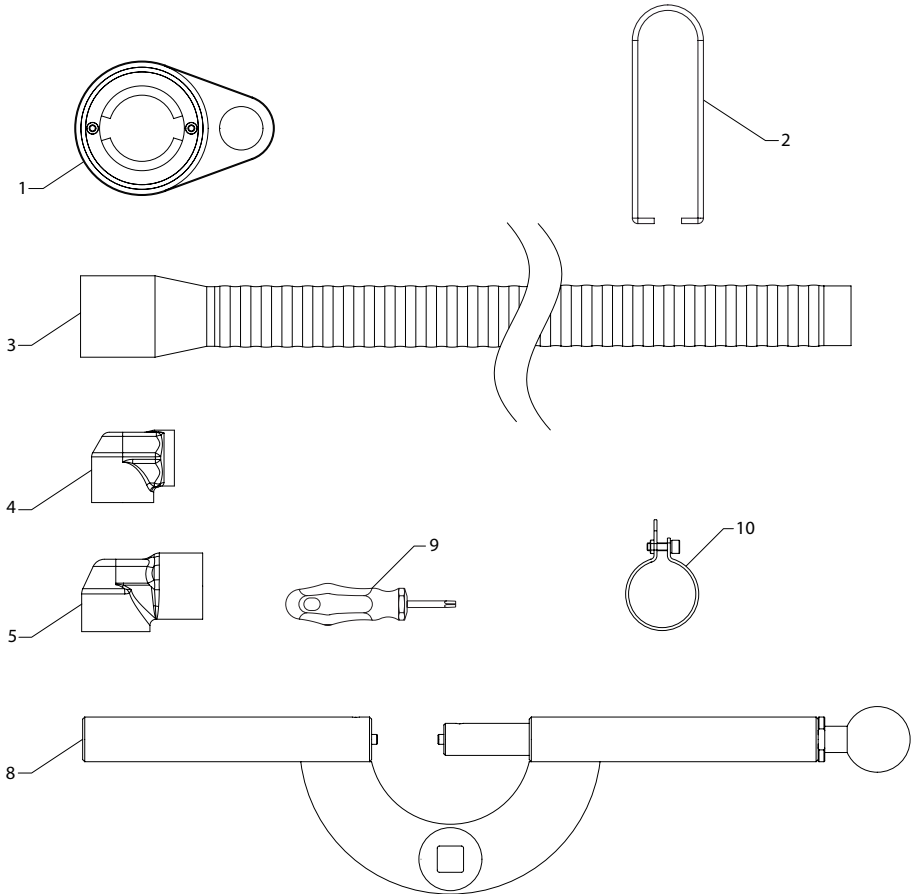
DAM120-K48	Work Station	3	X	QA8AA {} 115 {} QA8AA {} 150 {} QA8AS {} 070 {} QA8AS {} 090 {} QA8AS {} 115 {} QA8AS {} 150 {} QA8AS {} 180 {}	54.70	69.40	9.53	64.13	10.40	10-32 UNC-2A	---
DEA120-K48	Reaction Bar	4	X	QA8AAL {} 115 {} QA8AAL {} 150 {} QA8ASL {} 070 {} QA8ASL {} 090 {} QA8ASL {} 115 {} QA8ASL {} 150 {} QA8ASL {} 180 {}	54.70	69.40	9.53	64.13	7.14	10-32 UNC-2A	264.4

Flange Mounting



(Dwg. 16585465)

Accessories Diagram



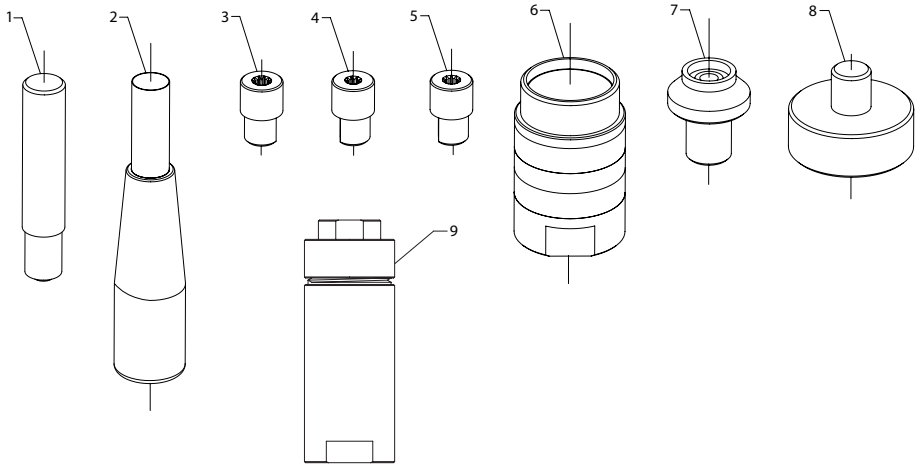
(Dwg. 16585473)

Accessories Parts List

Item	Part Description	Part Number	Dimension / Size
1	Swivel Hanger	QA6-A365-S	---
2	Bail	131133	---
3	Exhaust Kit	QA6-K284	---
4	Angle head Boot	131997	35 Size
5	Angle head Boot	GEA40-172	43 Size
6	Angle head Boot	GEA40-173	48 Size
7	Angle head Boot	GEA240-173	56 Size
8	Spanner Wrench	GEA40-478	---
9	Torx Driver	125116	---
10	Hanger Assembly	QA6-A365-1	---

Item not illustrated.

Tools and Adaptors Diagram



(Dwg. 16585978)

Tools and Adaptors Parts List

Item	Part Description	Part Number	Usage	For Model
1	Valve Seat Tool	OM127	Housing Valve seat	QA6 {}, QA8 {}
2	Retaining Ring Tool	80187362	Clutch retaining ring assembly	QA6 {}, QA8 {}
3	Rotor Spline Adaptor	80187396	8 Teeth Motor spacing	QA6 {}
4	Rotor Spline Adaptor	80187404	10 Teeth Motor spacing	QA6 {}, QA8 {}
5	Rotor Spline Adaptor	80187412	11 Teeth Motor spacing	QA6 {}, QA8 {}
6	Motor Clamp Tool	80187388	Motor spacing	QA6 {}
7	Motor Press Assembly	80187370	Motor Back Bearing Press	QA6 {}, QA8 {}
8	Motor Assembly Tool	80187420	Motor Front Bearing Press	QA6 {}, QA8 {}
9	Motor Clamp Tool	16604845	Motor spacing	QA8 {}

Parts and Maintenance

When the life of the tool has expired, it is recommended that the tool be disassembled, degreased and parts be separated by material so that they can be recycled.

Tool repair and maintenance should only be carried out by an authorized Service Center.

Refer all communications to the nearest **Ingersoll Rand** Office or Distributor.

Related Documentation

For additional information refer to:

Air Angle Wrench, Screwdriver or Nut Runner Product Safety Information Manual 04585006.

Air Angle Wrench and Nut Runner Product Information Manual 16601064.

Maintenance Information Manual 16601056.

Manuals can be downloaded from www.irtools.com.

Notes:

Notes:

www.irttools.com

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