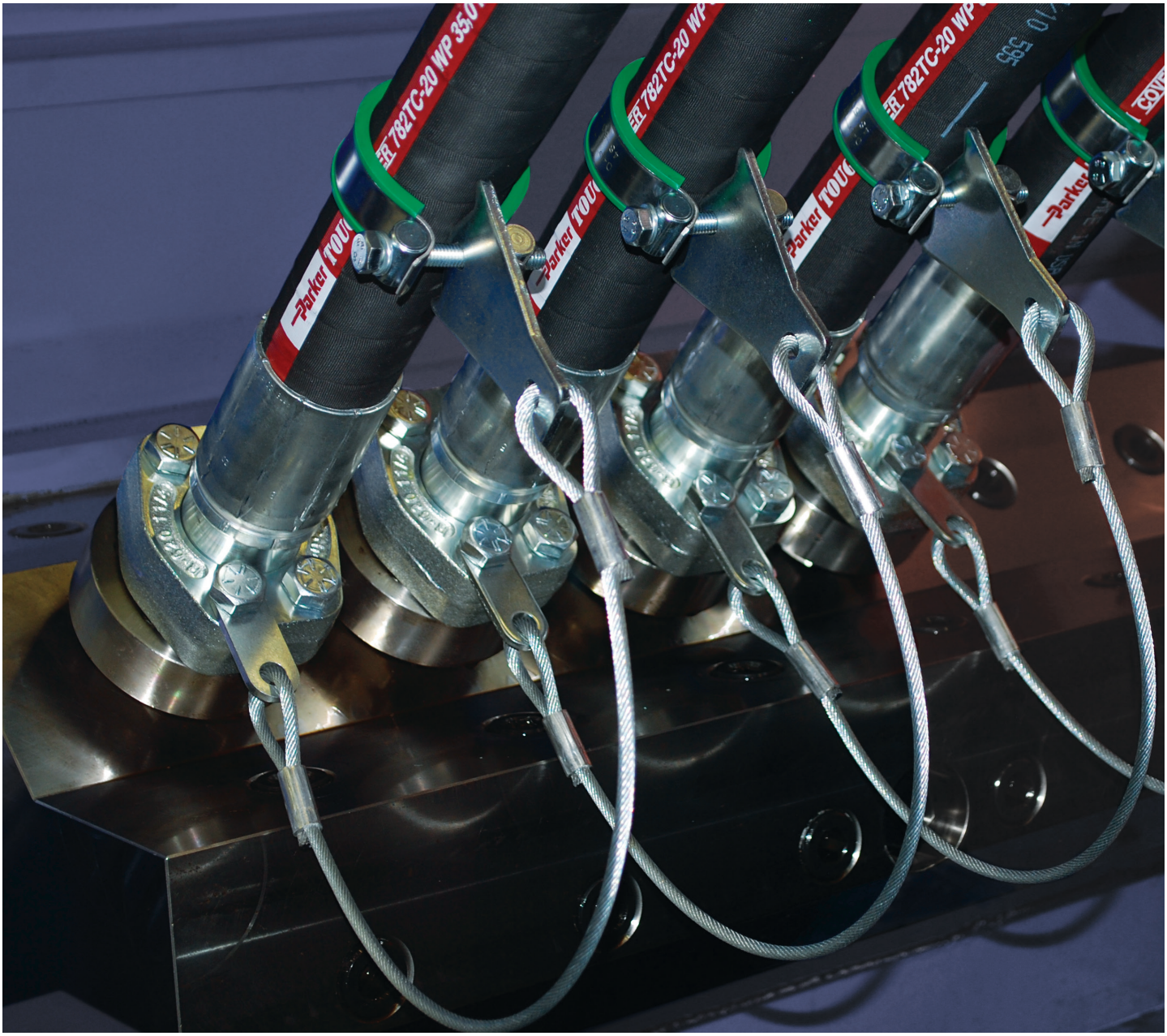
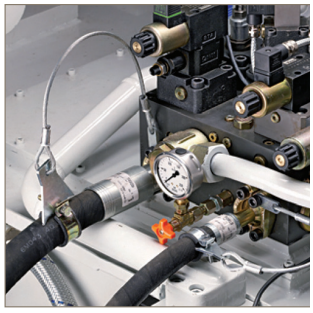
hymatik



Hose Whip Restraint

Safety Restraining System for Pressure Hoses



Parker

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Hose Whip Restraint

Safety restraining system for pressure hoses

The Hose Whip Restraint System is designed to prevent whipping of a pressurized hose in the event of the hose separating from its fitting.

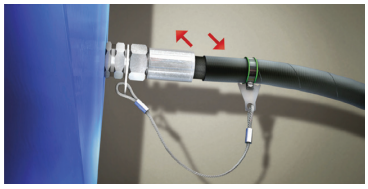
This system provides an additional level of safety and helps prevent damage to nearby equipment or injury to operators near the failed hose by limiting the whip or travel of the pressurized hose after it breaks free from its fitting.

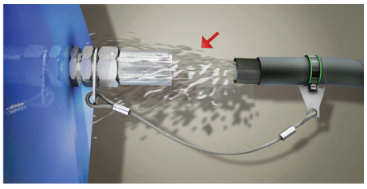
Serious damage or injury can occur from whipping hoses, especially at higher pressures. The system is comprised of two parts – a hose collar and a cable assembly.

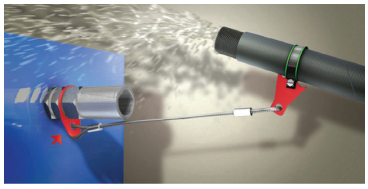
The hose collar (WRCxxxx) is selected based on the outside diameter of the hose, and the cable assembly is selected based on the type of hose connection.

Two types of cable assemblies are available – one for flange-type connections (WRFxxx), and the other for port adapters (WRAxxx).

The Hose Whip Restraint is not to be used in place of proper hose crimping procedures as outlined in Hose Products Division Catalog 4400. Exceeding the maximum operating pressure of the hose jeopardizes the proper operation of the Hose Whip Restraint System.



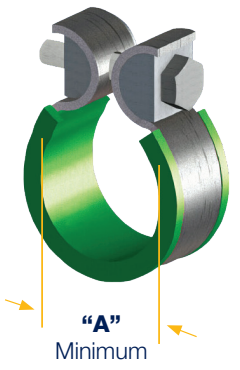


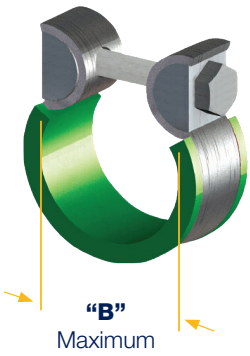


Step 1: Select a WRC part number based on the outside diameter of your hose.

Hose Collars

Part Number	Min. Opening "A" mm	Min. Opening "A" in	Max. Opening "B" mm	Max. Opening "B" in	Hose Collar Bolt Size*
WRC1212	12,0	0.47	12,5	0.49	M6
WRC1313	13,0	0.51	13,5	0.53	M6
WRC1415	14,0	0.55	15,0	0.59	M6
WRC1718	17,0	0.67	18,0	0.71	M6
WRC1819	18,0	0.71	19,0	0.75	M6
WRC2021	20,0	0.79	21,0	0.83	M6
WRC2223	22,0	0.87	23,0	0.91	M6
WRC2425	24,0	0.95	25,0	0.98	M6
WRC2526	25,0	0.98	26,0	1.02	M6
WRC2728	27,0	1.06	28,0	1.10	M6
WRC2829	28,0	1.10	29,0	1.14	M6
WRC3031	30,0	1.18	31,0	1.22	M6
WRC3435	34,0	1.34	35,0	1.38	M6
WRC3637	36,0	1.42	37,0	1.46	M6
WRC3839	38,0	1.50	39,0	1.54	M6
WRC4243	42,0	1.65	43,0	1.69	M6
WRC4445	44,0	1.73	45,0	1.77	M6
WRC4547	45,0	1.77	47,0	1.85	M8
WRC4850	48,0	1.89	50,0	1.97	M8
WRC5153	51,0	2.01	53,0	2.09	M8
WRC5456	54,0	2.13	56,0	2.21	M8
WRC6365	63,0	2.48	65,0	2.56	M8
WRC6971	69,0	2.72	71,0	2.78	M8





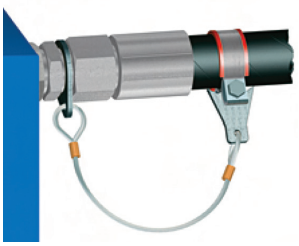
*Bolt size on collar must match the WRA or WRF bolt size.

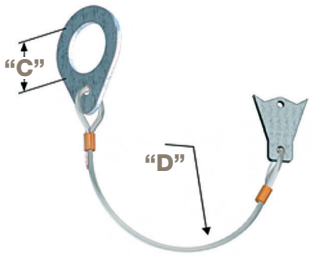
WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defect or other reproductive harm. For more information go to www.p65warnings.ca.gov.

Step 2: Select either a WRA or a WRF cable assembly based on your connection type.

Cable assembly for hose fittings or adapters

Part Number	Max. Operating Pressure	Hole I.D. "C"		Cable Length "D"		Grip Plate Bolt Size*
	psi	mm	in	mm	in	
WRA115	6,525	11,5	0.45	300	11.81	M6
WRA132	6,525	13,2	0.52	300	11.81	M6
WRA145	6,525	14,5	0.57	300	11.81	M6
WRA148	6,525	14,8	0.58	300	11.81	M6
WRA170	6,453	17	0.67	300	11.81	M6
WRA185	6,090	18,5	0.73	300	11.81	M6
WRA195	6,090	19,5	0.77	300	11.81	M6
WRA205	6,090	20,5	0.81	300	11.81	M6
WRA225	6,090	22,5	0.89	300	11.81	M6
WRA228	6,090	22,8	0.90	300	11.81	M6
WRA245	6,090	24,5	0.96	300	11.81	M6
WRA265	6,090	26,5	1.04	300	11.81	M6
WRA275	6,090	27,5	1.08	300	11.81	M6
WRA305	6,090	30,5	1.20	300	11.81	M6
WRA340S	6,090	34	1.34	450	17.72	M6
WRA340JIC	6,090	34	1.34	450	17.72	M8
WRA365	6,090	36,5	1.44	450	17.72	M8
WRA415S	6,090	41,5	1.63	450	17.72	M6
WRA415	6,090	41,5	1.63	450	17.72	M8
WRA425	6,090	42,5	1.67	450	17.72	M8
WRA455	6,090	45,5	1.79	450	17.72	M8
WRA480S	6,090	48	1.89	450	17.72	M6
WRA480	6,090	48	1.89	450	17.72	M8
WRA490	6,090	49	1.93	450	17.72	M8
WRA525	5,583	52,5	2.07	450	17.72	M8
WRA600	5,075	60	2.36	450	17.72	M8
WRA640	5,075	64	2.52	450	17.72	M8

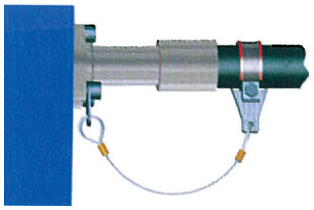


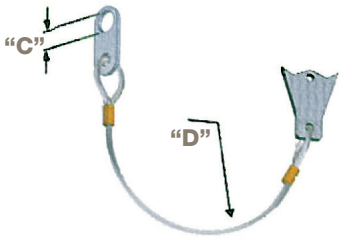


Cable assembly for Code 61/Code 62 flanges

Part Number	Max. Operating Pressure	Hole I.D. "C"		Cable Length "D"		Grip Plate Bolt Size*
	psi	mm	in	mm	in	
WRF085	6,018	8,5	0.33	300	11.81	M6
WRF105	6,090	10,5	0.41	450	17.72	M8
WRF125	6,090	12,5	0.49	450	17.72	M8
WRF145	6,090	14,5	0.57	450	17.72	M8
WRF165	6,090	16,5	0.65	450	17.72	M8
WRF205	5,075	20,5	0.81	450	17.72	M8

*Bolt size on collar must match the WTA or WRF bolt size.





WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defect or other reproductive harm. For more information go to www.p65warnings.ca.gov.

⚠WARNING

Failure or improper selection or improper use of hose, tubing, fittings, assemblies or related accessories ("Products") can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of these Products include but are not limited to:

- Fittings thrown off at high speed
- High velocity fluid discharge
- Explosion or burning of the conveyed fluid
- Electrocution from high voltage electric power lines
- Contact with suddenly moving or falling objects that are controlled by the conveyed fluid
- Injections by high-pressure fluid discharge
- Dangerously whipping Hose
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious
- Sparking or explosion caused by static electricity buildup or other sources of electricity
- Sparking or explosion while spraying paint or flammable liquids
- Injuries resulting from inhalation, ingestion or exposure to fluids

Before selecting or using any of these Products, it is important that you read and follow Parker Safety Guide for Selecting and Using Hose, Tubing, Fittings and Related Accessories (Parker Publication No. 4400-B.1- Revised November, 2007). Only Hose from Parker's Stratoflex Products Division is approved for in flight aerospace applications, and no other Hose can be used for such in flight applications.

The Hose Whip Restraint System has been tested to the operating pressures of the hoses listed in Hose Products Division Catalog 4400, and referenced in this bulletin. The Hose Whip Restraint is not designed to increase the hose rated pressure or to add incremental pressure rating to the hose / fitting combination. Your hose / fitting / whip restraint system is rated to the pressure of the lowest rated component of the system.

Selection Guide

Collar

Part Number	Min. Opening "A"		Max. Opening "B"		201, 221FR, 206, 225, 244, 266	213, 285, 293	302, 301LT, 304, 341, 421WC, BXX	351TC/ST, 422, 431, 436, 424, 387/TC/ST, 451TC/ST, 471TC/ST, 482TC/ST, 472TC/ST, 487/TC/ST	601	692	701, 721/TC/ST, 722/TC/ST, 774	731, P35, 781, 782TC/ST, 791TC, 792TC/ST	F42	801, 804, 821, 821FR, 831, 836	811, 881, 811HT	787/TC/ST, 797/TC/ST
	mm	in	mm	in												
WRC1212	12	0.47	12,5	0.49		-4			-3					-4		
WRC1313	13	0.51	13,5	0.53	-4		-3	-4								4
WRC1415	14	0.55	15	0.59	-5	-5, -6	-4	-5	-4	-6				-5, -6		
WRC1718	17	0.67	18	0.71	-6			-6	-5							6
WRC1819	18	0.71	19	0.75	-8	-8	-6		-6			-4		-8		
WRC2021	20	0.79	21	0.83				-8		-8	-6					-8
WRC2223	22	0.87	23	0.91	-10	-10	-8		-8	-10	-8	-6		-10		-10
WRC2425	24	0.95	25	0.98		-12		-10					-8			
WRC2526	25	0.98	26	1.02			-10		-10			-8		-12		
WRC2728	27	1.06	28	1.10	-12			-12			-10					-12
WRC2829	28	1.10	29	1.14			-12					-10				
WRC3031	30	1.18	31	1.22	-16	-16			-12		-12	-12	-12	-16	-12	
WRC3435	34	1.34	35	1.38				-16								-16
WRC3637	36	1.42	37	1.46		-20			-16		-16				-16	
WRC3839	38	1.50	39	1.54	-20		-16					-16	-16			
WRC4243	42	1.65	43	1.69												
WRC4445	44	1.73	45	1.77	-24	-24			-20						-20	
WRC4547	45	1.77	47	1.85			-20	-20			-20					-20
WRC4850	48	1.89	50	1.97				-24				-20	-20			
WRC5153	51	2.01	53	2.09							-24				-24	-24
WRC5456	54	2.13	56	2.21	-32	-32	-24					-24				
WRC6365	63	2.48	65	2.56				-32			-32				-32	
WRC6971	69	2.72	71	2.80								-32				-32

Adapter

Part Number	"A"		JIC 37° Fittings 103XX, 106XX, 137XX, 1L7XX, 139XX, 1L9XX, 141XX, 14VXX	Seal Lok (O-Ring Face Seal) 1JOXX, 1JBXX, 1JCXX, 1JSXX, 1J6XX, 1J7XX, 1J9XX, 1J5XX, 1J1XX	NPTF / NPSM 101XX, 113XX, 11LXX, 102XX, 1S2XX	BSPP / BSP 1D9XX, 192XX, 1B1XX, 1B2XX, 1B4XX, 1B5XX, 1FUXX, 1UTXX, 1GUXX
	mm	in	Port End	Port End	Port End	Port End
WRA115	11,5	0.45	-4			
WRA132	13,2	0.52	-5			
WRA145	14,5	0.57		-4	-4	-4
WRA148	14,8	0.58	-6			
WRA170	17	0.67				-6
WRA185	18,5	0.73		-6	-6	
WRA195	19,5	0.77				
WRA205	20,5	0.81	-8			
WRA225	22,5	0.89		-8	-8	-8
WRA228	22,8	0.90	-10			
WRA245	24,5	0.96				-10
WRA265	26,5	1.04		-10		
WRA275	27,5	1.08	-12			
WRA305	30,5	1.20	-14	-12	-12	-12
WRA340S	34	1.34	-16		-16	-16
WRA340JIC	34	1.34	-16			
WRA365	36,5	1.44		-16		
WRA415S	41,5	1.63	-20			
WRA415	41,5	1.63	-20			
WRA425	42,5	1.67			-20	-20
WRA455	45,5	1.79		-20		
WRA480S	48	1.89	-24			
WRA480	48	1.89	-24			
WRA490	49	1.93			-24	-24
WRA525	52,5	2.07		-24		
WRA600	60	2.36				
WRA640	64	2.52	-32			

Contact HPD for other style fittings.

Flange

Part Number	"A"		5050HK	5151HK	HFHFHK	8FHFHK	M1M1HK	M2M2HK	FFK61	FFK62
	mm	in								
WRF085	8,5	0.33		-8						
WRF105	10,5	0.41		-12, -16	-12	-12	-8, -12, -16, -20	-8, -12	-12, -16	-12
WRF125	12,5	0.49	-20	-20	-16	-16	-24, -32, -40	-16, -20	-20	-16
WRF145	14,5	0.57	-24, -32	-24, -32, -40	-20				-24, -32	-20
WRF165	16,5	0.65		-48	-24			-24		-24
WRF205	20,5	0.81			-32			-32		-32

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