

C DIN 3015 and Series Strip Clamps

HYDAC manufactures a complete line of hose, tube, and pipe mounting components according to the DIN 3015 standard. HYDAC clamps assure a simple, reliable dampening support for lines which absorb shock, dampen vibration, and reduce noise in plumbing systems.

DIN 3015 & SERIES STRIP CLAMPS

Overview

HYDAC manufactures a complete line of hose, tube, and pipe mounting components according to the DIN 3015 standard. Our clamps assure a simple, reliable dampening support for lines which absorb shock, dampen vibration, and reduce noise in plumbing systems.

HRL Series – Standard Duty

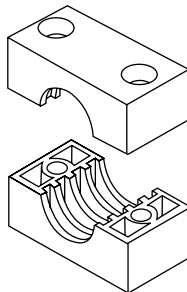
(see pages B1-4 to B1-5)

- Available to 2" tube outside diameter.
- Recommended for systems with less than 1500 PSI operating pressure and no dynamic loads.

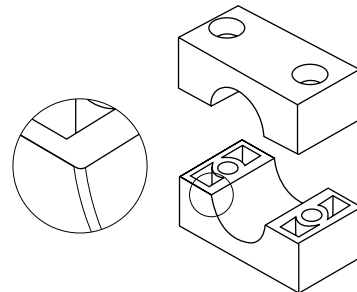


Bore Styles

Standard duty, heavy duty, and twin series are available with either ribbed bores (standard) or smooth bore (special order). When ordering a smooth bore arrangement or clamp pairs, a "G" is inserted in the code directly after the "HR" i.e. HRGL, HRGS and HRGZ



Ribbed Bore
(standard)



Smooth Bore
smooth surface and chamfered edge
prevent chaffing of hose (special)

HRS – Heavy Duty

(see pages B1-6 to B1-7)

- Available to 16" nominal pipe size
- Recommended for systems with greater than 1500 PSI operating pressure, operations with pressure surges and applications with wide temperature fluctuations.



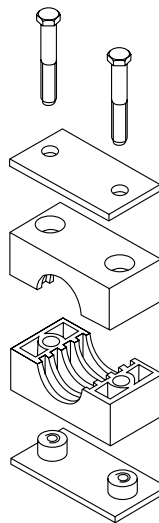
Arrangements

Various arrangements are available in each series.

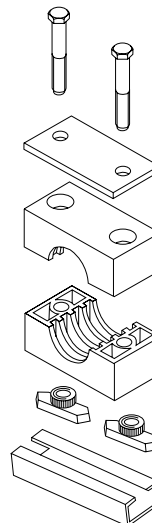
HRZ – Twin

(see pages B1-8 to B1-9)

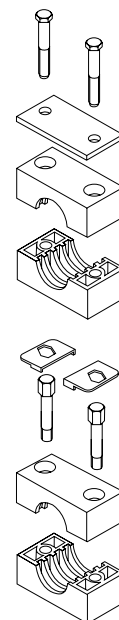
- Available to 1-1/4" nominal pipe size
- Recommended for systems with less than 1500 PSI operating pressure and no dynamic loads



Weld Plate Mounting



C-rail Mounting



Stacking Modules & Kits

HREL – Standard Duty w/ Rubber Insert

(see pages B1-10 to B1-11)

- Available to 2" tube outside diameter
- Recommended for systems with less than 1500 PSI operating pressure and no dynamic loads
- Provide for greater noise reduction and resistance to axial movement



HRES – Heavy Duty w/ Rubber Insert

(see pages B1-12 to B1-13)

- Heavy duty available to 5 1/4" bore diameter
- Provide for greater noise reduction and resistance to axial movement



Materials

Metal components are carbon steel (standard). Stainless steel is also available. Metal components to be welded (weld plates and c-rails) and heavy duty top plates size 5-8 are phosphate coated, while all other metal components are zinc plated. Clamp pairs are polypropylene (standard). Polyamide and aluminum clamp pairs are also available.

For specifications on these materials, see page B1-3.

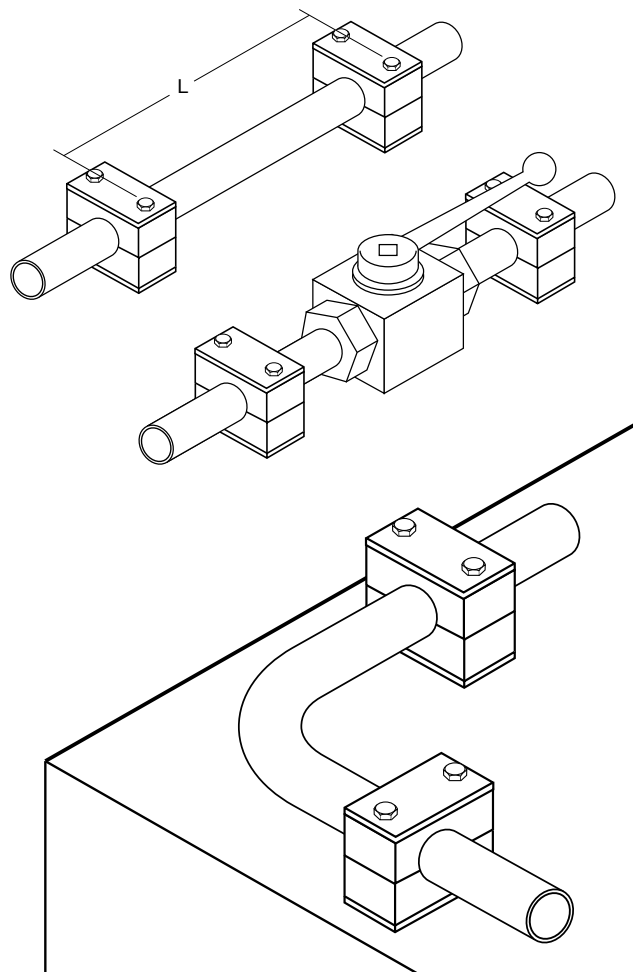
Ordering

Clamps can be ordered as complete arrangements, or separate components. See each series for details.

Technical Specifications

Mounting Guidelines

- The first clamp should be mounted directly after the threaded connection or coupling. This protects the connection from vibrations.
- Bends in the line should be clamped on BOTH sides of the bend.
- The line should be clamped directly before and after any inline valves.
- Proper torquing of the clamp bolts is important, and is part of the DIN 3015 Standard (see the chart for torque information)



Distance Between Clamps

Pipe Size	Distance (L)	Tube Size	Distance (L)
1/4"	4'	1/16"	3'
1/2"	4'	1/8"	3'
3/4"	5'	1/4"	3'
1"	5'	3/8"	3'
1 1/4"	7'	1/2"	3'
1 1/2"	8'	5/8"	4'
2"	10'	3/4"	4'
2 1/2"	10'	7/8"	4'
3"	12'	1"	5'
4"	13'	1 1/4"	7'
5"	13'	1 1/2"	7'
6"	14'	1 3/4"	7'
		2"	7'

Bolt Tightening Torque Specifications

Series	Size	Thread	PP	PA	AL
HRL (Std. Duty)	0 to 6	1/4-20	8	10	12
HRS (Heavy Duty)	1 & 2	3/8-16	12	20	30
	3	3/8-16	15	25	35
	4	7/16-14	30	40	55
	5	5/8-11	45	55	120
	6	3/4-10	80	150	220
	7	7/8-9	110	200	250
	8	M30	180	350	500
	9	M30	200	370	500
HRZ (Twin)	10	M30	270	470	600
	1	1/4-20	5	6	-
	2 to 4	5/16-18	12	12	-
	5	5/16-18	8	8	-

Note: Torque is given in Nm (Nm x 0.7376 = Ft-lbs)

Properties of Materials (clamp pairs)

Properties	Polypropylene PP	Polyamide PA	Aluminum AL
Mechanical Properties			
Tensile Strength	4200 psi	7800-11500 psi	-
Flexural Yield Strength	7600 psi	20500 psi	-
Impact Strength (Izod Method)	No Failure	No Failure	-
Tensile Test	-	-	28000 psi
Brinell Hardness No.	-	-	60 BHN
Modules of Elasticity	-	-	9.7 x 106 - 11.1 x 106 psi
Thermal Properties			
Continuous Service Temperature Range	-22° to 194°F -30° to 90°C	-40° to 284°F -40° to 140°C	-67° to 500°F -55° to 260°C
Electrical Properties			
Volume Resistivity	1015 Ohm-cm	1015 Ohm-cm	-
Chemical Properties			
Chemical Resistance	Resistant to most aqueous solutions of inorganic salts, minerals, and organic acids, even at high temperatures.	Resistant to organic solvents, dilute acids, and bases. Resistant to radiation.	Resistant to neutral and sea water, organic acids, esters, oils, and inorganic salt solutions.

DIN 3015 & SERIES STRIP CLAMPS

Bulk Packaging for DIN 3015 Clamps

Bulk Arrangements

Multiple individual components, unassembled, that build a clamp assembly. Packaged and shipped in one box as separate components in bagged quantities. For quantities other than bagged quantities, the difference shall be sold in "kits". Example: Arrangement orders for HRL 1 clamps should be in multiples of 50. If you order quantity 50 HRL 1 assemblies, you will receive 50 clamp pairs, 50 weld plates, 50 top plates and 100 bolts in bags. Labeled with arrangement number.


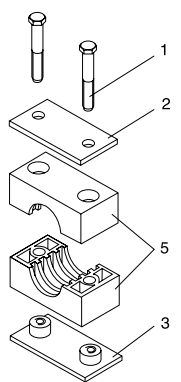

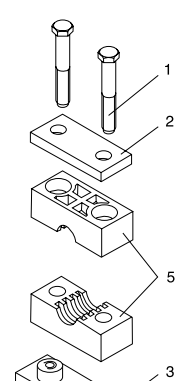

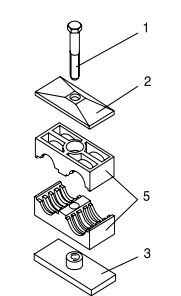
Bulk Packaging

Multiple individual components, unassembled, sold in bagged quantities. Packaged in bagged quantities. Bulk orders for individual clamp components are acceptable. An example would be a "Bulk" order for (50) HRL 1 Weld Plates. Labeled with arrangement number.



Note: Clamps come unassembled in bulk packages either in bags or boxes.

Quantities for Bulk Arrangements and Bulk Packaging

Type	Series/ Size	(Item 5) Clamp Pairs Per Bag/ Box	(Item 3) Weld Plates Per Bag/ Box	(Item 2) Top Plates Per Bag/ Box	(Item 1) Hex Bolts Per Bag/ Box	Quantity of Arrangements	Items Description
 Standard Duty	HRL 0	50	50	50	100	50	
	HRL 1	50	50	50	100	50	
	HRL 2	50	50	50	100	50	
	HRL 3	50	50	50	100	50	
	HRL 4	25	25	25	50	25	
	HRL 5	25	25	25	50	25	
	HRL 6	25	25	25	50	25	
 Heavy Duty	HRS 1	25	25	25	50	25	
	HRS 2	25	25	25	50	25	
	HRS 3	25	25	25	50	25	
	HRS 4*	25	25	25	50	25	
	HRS 5*	25	25	25	50	25	
	HRS 6*	10	10	10	20	10	
	HRS 7*	10	10	10	20	10	
	HRS 8*	10	10	10	20	10	
 Twin	HRZ 1	50	25	50	50	50	
	HRZ 2	50	25	50	50	50	
	HRZ 3	50	25	50	50	50	
	HRZ 4	25	25	25	25	25	
	HRZ 5	25	25	25	25	25	

*Indicates these items are packaged in boxes, all other items packaged in bags.

Kit Packaging for DIN 3015 Clamps


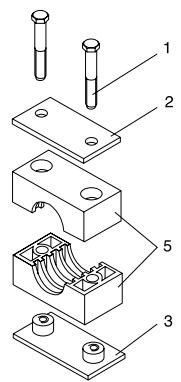

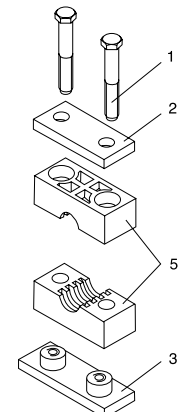

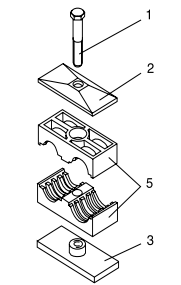
Kit Packaging

Multiple individual components, unassembled, that build a clamp assembly. Packaged as individual kits, each building one clamp per bag. Any quantity less than a bagged quantity will be sold in "kits". Please note that kits have new part numbers. Example: If you order quantity 5 HRL 1 kits, you will receive five bags that include the following: 1 clamp pair, 1 weld plate, 1 top plate and 2 bolts.)



Note: Kits come unassembled in a single bag or box.

Quantities for Kit Packaging

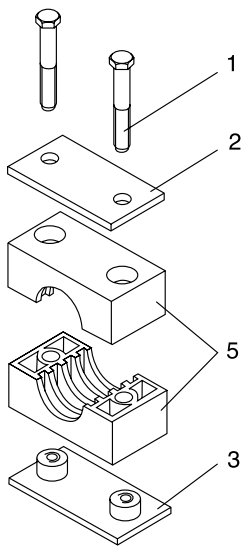
Type	Series/ Size	(Item 5) Clamp Pairs Per Bag	(Item 3) Weld Plates Per Bag	(Item 2) Top Plates Per Bag	(Item 1) Hex Bolts Per Bag	Quantity of Arrangements	Items Description
 Standard Duty	HRL 0	1	1	1	1	1	
	HRL 1	1	1	1	2	1	
	HRL 2	1	1	1	2	1	
	HRL 3	1	1	1	2	1	
	HRL 4	1	1	1	2	1	
	HRL 5	1	1	1	2	1	
	HRL 6	1	1	1	2	1	
 Heavy Duty	HRS 1	1	1	1	2	1	
	HRS 2	1	1	1	2	1	
	HRS 3	1	1	1	2	1	
	HRS 4*	1	1	1	2	1	
	HRS 5*	1	1	1	2	1	
	HRS 6*	1	1	1	2	1	
	HRS 7*	1	1	1	2	1	
	HRS 8*	1	1	1	2	1	
 Twin	HRZ 1	1	1	1	1	1	
	HRZ 2	1	1	1	1	1	
	HRZ 3	1	1	1	1	1	
	HRZ 4	1	1	1	1	1	
	HRZ 5	1	1	1	1	1	

*Indicates these items are packaged in boxes, all other items packaged in bags.

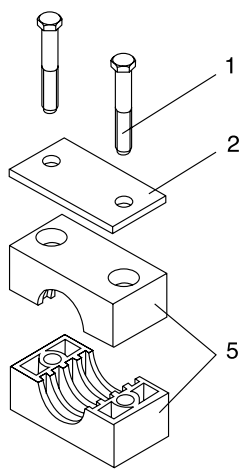
DIN 3015 & SERIES STRIP CLAMPS

HRL Series

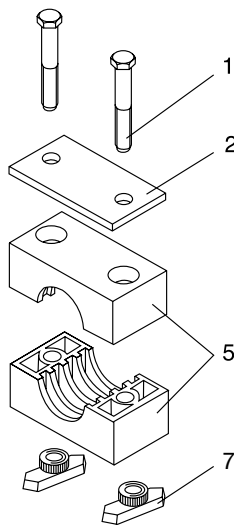
Standard Duty Clamps



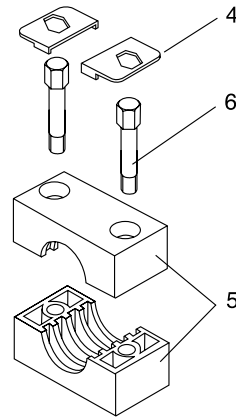
A
Single Clamp with
Weld Plate



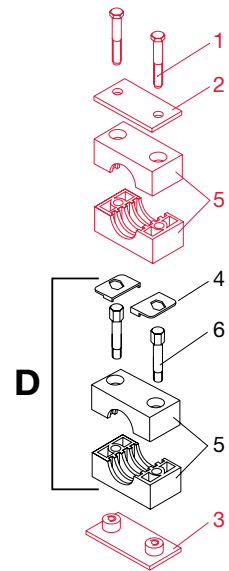
A1
Single Clamp without
Weld Plate



A1TM
Single Clamp for
C-Rail Mounting
(order C-Rail separately)
(size 1 to 8 only)



D
Single Clamp
Stacking Module
(size 0 to 6 only)



A + D
Order one A (red)
arrangement and
one D (black)
arrangement separately.

A maximum of 3 stacking modules is recommended

Parts Legend (see page B1-14 to B1-18 to order parts separately)

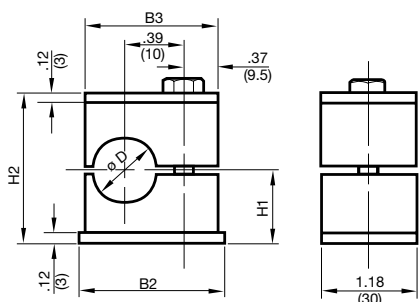
- | | |
|-----------------|-----------------|
| 1 Hex Head Bolt | 5 Clamp Pair |
| 2 Top Plate | 6 Stacking Bolt |
| 3 Weld Plate | 7 C-Rail Nut |
| 4 Safety Plate | |

Model Code

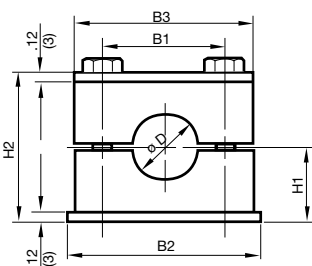
	HRL	2	A	12.7	PP	UNC
Series	_____					
HRL =	Standard duty single clamp with ribbed bore					
HRGL =	Standard duty single clamp with smooth bore					
Size Family	_____					
	0 to 8 (refer to table A on next page)					
Arrangement	_____					
A =	Single clamp with top plate and weld plate					
A1 =	Single clamp without weld plate					
A1TM =	C-Rail mounted clamp					
D =	Single clamp stacking module (size 0-6 only)					
Bore Size	_____					
	(refer to table A on next page)					
Clamp Material	_____					
PP =	Polypropylene					
PA =	Polyamide					
AL =	Aluminum					
Metal Component Material	_____					
(omit) =	Carbon Steel					
A2 =	304 Stainless Steel					
A4 =	316 Stainless Steel					
Thread Type	_____					
UNC =	Standard					
M =	Metric					

Dimensions

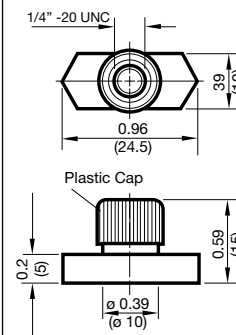
Size 0



Sizes 1-8



C-Rail Nut



C-Rail

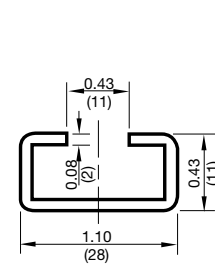


Table A

Size	øD Bore Size	Recommended Nominal Size		B1	B2	B3	H1	H2	Bolt Size Arrangement	Weight Arrangement	
		Tube O.D.	Pipe							A	A1
0	0.24 (6)	-	-	N/A	1.18 (30)	1.10 (28)	0.63 (16)	1.26 (32)	1/4-20 x 1-1/4 (M6 x 30)	0.14 (0.06)	0.12 (0.05)
	0.25 (6.4)	1/4"	-								
	0.31 (8.0)	5/16"	-								
	0.37 (9.5)	3/8"	-								
	0.39 (10)	-	1/8"								
	0.47 (12)	-	-								
1	0.24 (6)	-	-	0.79 (20)	1.42 (36)	1.34 (34)	0.63 (16)	1.26 (32)	1/4-20 x 1-1/4 (M6 x 30)	0.18 (0.08)	0.13 (0.06)
	0.25 (6.4)	1/4"	-								
	0.31 (8.0)	5/16"	-								
	0.37 (9.5)	3/8"	-								
	0.39 (10)	-	1/8"								
	0.47 (12)	-	-								
2	0.50 (12.7)	1/2"	-	1.02 (26)	1.65 (42)	1.57 (40)	0.77 (19.5)	1.53 (39)	1/4-20 x 1-1/2 (M6 x 35)	0.27 (0.12)	0.16 (0.07)
	0.54 (13.7)	-	1/4"								
	0.55 (14)	-	-								
	0.59 (15)	-	-								
	0.63 (16)	5/8"	-								
	0.67 (17.1)	-	3/8"								
	0.71 (18)	-	-								
3	0.75 (19)	3/4"	-	1.30 (33)	1.97 (50)	1.89 (48)	0.85 (21.5)	1.69 (43)	1/4-20 x 1-5/8u (M6 x 40)	0.31 (0.14)	0.22 (0.10)
	0.79 (20)	-	-								
	0.84 (21.3)	-	1/2"								
	0.87 (22)	-	-								
	0.91 (23)	-	-								
	0.98 (25)	-	-								
	1.0 (25.4)	1"	-								
4	1.05 (26.6)	-	3/4"	1.57 (40)	2.32 (59)	2.24 (57)	0.94 (24)	1.89 (48)	1/4-20 x 1-3/4 (M6 x 45)	0.33 (0.15)	0.27 (0.12)
	1.10 (28)	-	-								
	1.18 (30)	-	-								
	1.26 (32)	1-1/4"	-								
5	1.33 (33.7)	-	1"	2.05 (52)	2.83 (72)	2.75 (70)	1.26 (32)	2.52 (64)	1/4-20 x 2-1/2 (M6 x 60)	0.42 (0.19)	0.31 (0.14)
	1.38 (35)	-	-								
	1.50 (38)	1-1/2"	-								
	1.57 (40)	-	-								
	1.65 (42)	-	1-1/4"								
	1.75 (44.5)	1-3/4"	-								
6	1.9 (48.3)	-	1-1/2"	2.60 (66)	3.46 (88)	3.38 (86)	1.42 (36)	2.83 (72)	1/4-20 x 2-3/4 (M6 x 70)	0.53 (0.24)	0.40 (0.18)
	2.0 (50.8)	2"	-								
	2.37 (60.3)	-	2"								
7	2.5 (63.5)	2 1/2"	-	3.7 (94)	4.8 (122)	4.64 (118)	1.97 (50)	3.94 (100)	1/4-20 x 4 (M6 x 100)	0.82 (0.37)	0.53 (0.24)
	2.87 (73)	-	2 1/2"								
	3 (76.1)	3"	-								
	3.5 (88.9)	-	3"								
8	3.5 (88.9)	-	3"	4.72 (120)	5.8 (148)	5.67 (143.96)	2.44 (62)	4.88 (124)	1/4-20 x 5 (M6 x 125)	1.05 (0.48)	0.72 (0.33)

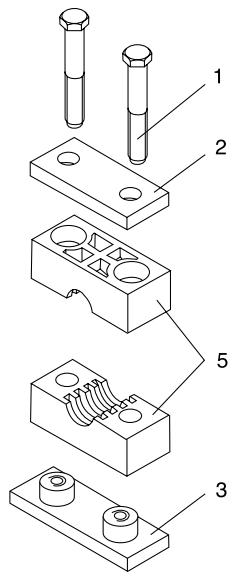
Notes:

1. Other bore diameters are available — Consult factory for details.
2. Dimensions are in inches (mm) and lbs (kg).
3. Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

DIN 3015 & SERIES STRIP CLAMPS

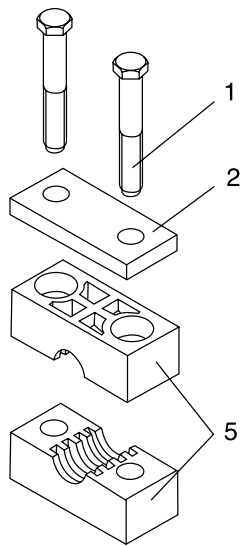
HRS Series

Heavy Duty Clamps



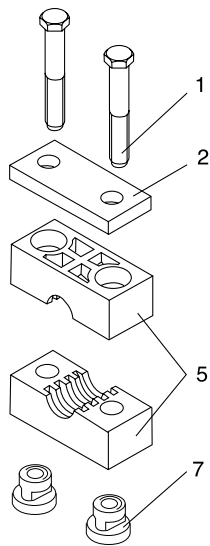
S

Single Clamp
with Weld Plate



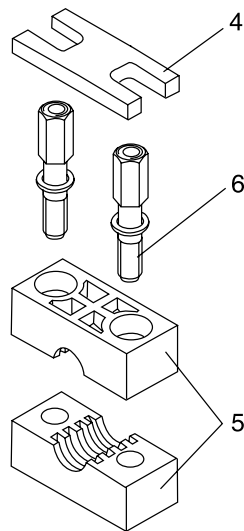
S1

Single Clamp
without Weld Plate



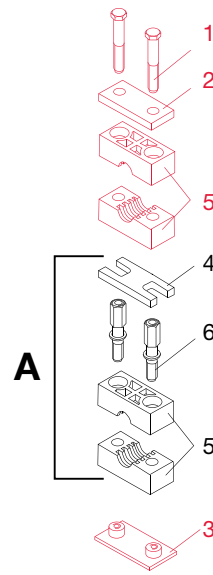
S1TM

Single Clamp for
C-Rail Mounting
(size 1 to 4 only)
(order C-Rail separately)



A

Single Clamp
Stacking Module
(size 1 to 7 only)



S + A

Order one S (red)
arrangement and one
A (black) arrangement
separately.

A maximum of 3 stacking modules is recommended

Parts Legend (see page B1-14 to B1-18 to order parts separately)

1 Hex Head Bolt	5 Clamp Pair
2 Top Plate	6 Stacking Bolt
3 Weld Plate	7 C-Rail Nut
4 Safety Plate	

Model Code

HRS 1 S 12.7 PP UNC

Series _____
 HRS = Heavy duty single clamp with ribbed bore
 HRGS = Heavy duty single clamp with smooth bore

Size Family _____
 1 to 10 (refer to table B on next page)

Arrangement _____
 S = Single clamp with top plate & weld plate
 S1 = Single clamp without weld plate
 S1TM = C-Rail mounted clamp (sizes 1-4 only)
 A = Single clamp stacking module (sizes 1-7 only)

Bore Size (in mm) _____
 (refer to table B on next page)

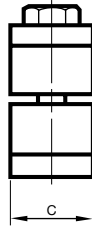
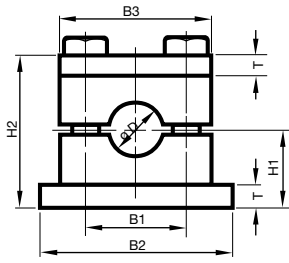
Clamp Material _____
 PP = Polypropylene
 PA = Polyamide
 AL = Aluminum

Metal Component Material _____
 (omit) = Carbon Steel
 A4 = 316 Stainless Steel

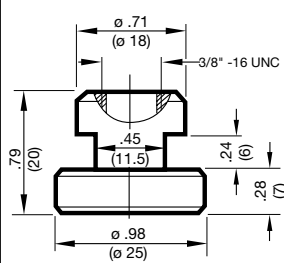
Thread Type _____
 UNC = Standard
 M = Metric (sizes 8, 9 and 10 available in Metric only)

Dimensions

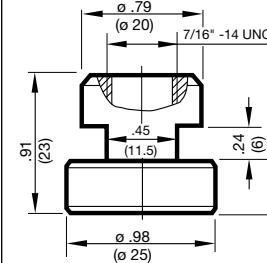
All Sizes



C-Rail Nut (sizes 1-3)



C-Rail Nut (size 4)



C-Rail (all sizes)

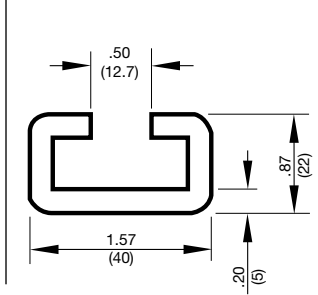


Table B

Size	øD Bore Size	Recommended Nominal Size		B1	B2	B3	C	H1	H2	T	Bolt Size	Weight Arrangement	
		Tube O.D.	Pipe									S	S1
1	0.24 (6.0)	—	—	1.30 (33)	2.87 (73)	2.17 (55)	1.18 (30)	0.94 (24)	1.89 (48)	0.31 (8)	3/8-16 x 1-3/4 (M10 x 45)	0.52 (0.24)	0.26 (0.12)
	0.25 (6.4)	1/4"	—										
	0.32 (8.0)	5/16"	—										
	0.37 (9.5)	3/8"	—										
	0.39 (10)	—	—										
	0.41 (10.3)	—	1/8"										
	0.5 (12.7)	1/2"	—										
	0.54 (13.7)	—	1/4"										
	0.55 (14)	—	—										
	0.59 (15)	—	—										
0.63 (16)	5/8"	—											
0.67 (17.1)	—	3/8"											
0.71 (18)	—	—											
2	0.75 (19)	3/4"	—	1.77 (45)	3.35 (85)	2.76 (70)	1.18 (30)	1.26 (32)	2.52 (64)	0.31 (8)	3/8-16x2-1/4 (M10 x 60)	0.72 (0.33)	0.34 (0.16)
	0.79 (20)	—	1/2"										
	0.84 (21.3)	—	—										
	0.87 (22)	7/8"	—										
	0.98 (25)	—	—										
	1.0 (25.4)	1"	—										
	1.05 (26.7)	—	3/4"										
	1.1 (28)	—	—										
1.18 (30)	—	—											
3	0.98 (25)	—	—	2.36 (60)	3.94 (100)	3.35 (85)	1.18 (30)	1.50 (38)	2.99 (76)	0.31 (8)	3/8-16 x 2-3/4 (M10 x 70)	0.97 (0.44)	0.52 (0.24)
	1.18 (30)	—	—										
	1.26 (32)	1-1/4"	—										
	1.33 (33.7)	—	1"										
	1.38 (35)	—	—										
	1.5 (38)	1-1/2"	—										
	1.57 (40)	—	—										
1.65 (42)	—	1-1/4"											
4	1.18 (30)	—	—	3.56 (90.5)	5.51 (140)	4.52 (115)	1.77 (45)	2.17 (55)	4.33 (110)	0.39 (10)	7/16-14 x 4 (M12 x 100)	2.58 (1.17)	1.35 (0.61)
	1.5 (38)	1-1/2"	—										
	1.65 (42)	—	1-1/4"										
	1.75 (44.5)	1-3/4"	—										
	1.9 (48.3)	—	1-1/2"										
	2.0 (50.8)	2"	—										
	2.13 (54)	—	—										
	2.24 (57)	2-1/4"	—										
	2.37 (60.3)	—	2"										
	2.5 (63.5)	2-1/2"	—										
2.56 (65)	—	—											
2.75 (70)	2-3/4"	—											
5	1.5 (38)	1-1/2"	—	4.80 (122)	7.09 (180)	5.98 (152)	2.36 (60)	2.76 (70)	5.51 (140)	0.39 (10)	5/8-11 x 5-1/4 (M16 x 130)	4.37 (1.99)	2.50 (1.14)
	2.6 (66)	—	—										
	2.76 (70)	—	—										
	2.87 (73)	—	2-1/2"										
	3.0 (76.1)	3"	—										
3.5 (88.9)	—	3"											
6	2.56 (65)	—	—	6.61 (168)	8.86 (225)	8.07 (205)	3.15 (80)	3.94 (100)	7.87 (200)	0.59 (15)	3/4-10x7-1/2 (M20 x 190)	11.11 (5.05)	6.76 (3.07)
	3.78 (96)	—	—										
	4.0 (101.6)	4"	3-1/2"										
	4.25 (108)	4-1/4"	—										
	4.5 (114.3)	4-1/2"	4"										
7	3.54 (90)	—	—	8.07 (205)	10.63 (270)	9.92 (252)	3.54 (90)	4.53 (115)	9.06 (230)	0.59 (15)	7/8-9x8-1/2 (M24 x 220)	15.89 (7.22)	9.58 (4.36)
	5.35 (136)	—	—										
	5.5 (139.7)	—	5"										
	6.61 (168)	—	6"										
8	7.63 (193.7)	7-5/8"	7"	10.43 (265)	13.39 (340)	12.60 (320)	4.72 (120)	6.30 (160)	12.60 (320)	0.98 (25)	M30 x 300	58.47 (26.58)	37.43 (17.01)
	8.62 (219.1)	—	8"										
9	10.75 (273.0)	—	10"	15.55 (395)	20.47 (520)	18.35 (466)	6.30 (160)	9.25 (235)	18.50 (470)	1.18 (30)	M30 x 450	112.92 (51.33)	67.01 (30.46)
	12.75 (323.9)	—	12"										
10	14 (355.6)	—	14"	20.87 (530)	26.77 (680)	24.80 (630)	7.09 (180)	11.42 (290)	22.23 (580)	1.18 (30)	M30 x 560	149.59 (67.99)	86.54 (39.34)
	16 (406.4)	—	16"										

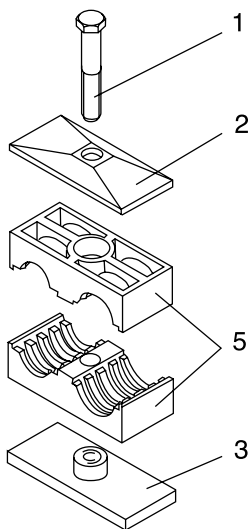
Notes:

1. Other bore diameters are available — Consult factory for details.
2. Dimensions are in inches (mm) and lbs (kg).
3. Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

DIN 3015 & SERIES STRIP CLAMPS

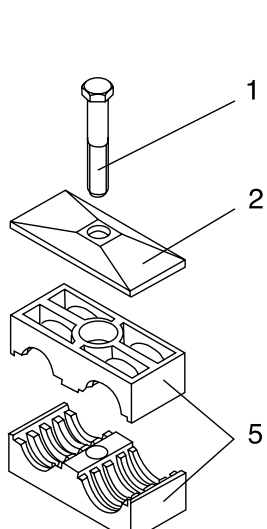
HRZ Series

Twin Clamps



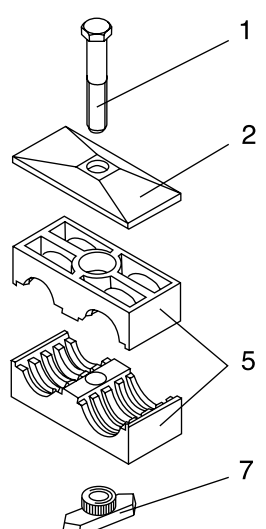
A

Twin Clamp
with Weld Plate



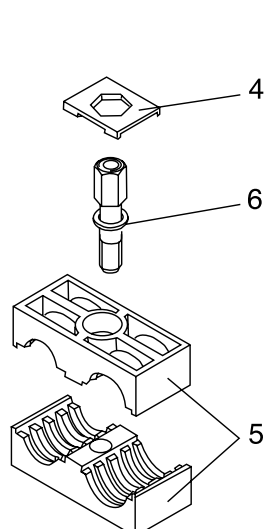
A1

Twin Clamp
without Weld Plate



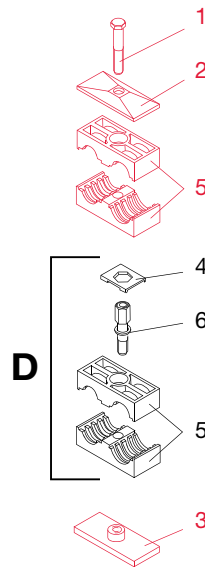
A1TM

Twin Clamp for
C-Rail Mounting
(order C-Rail separately)
(size 1 to 5 only)



D

Twin Clamp
Stacking Module



D

A + D

Order one A (red)
arrangement and
one D (black)
arrangement separately.

A maximum of 3 stacking modules is recommended

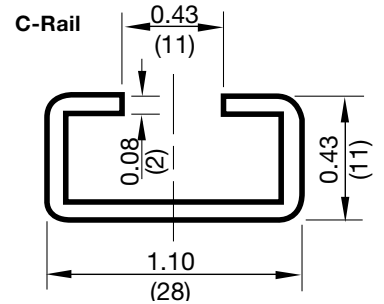
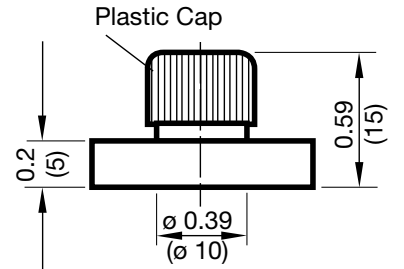
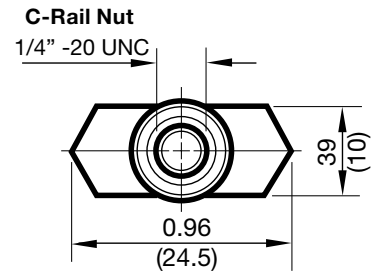
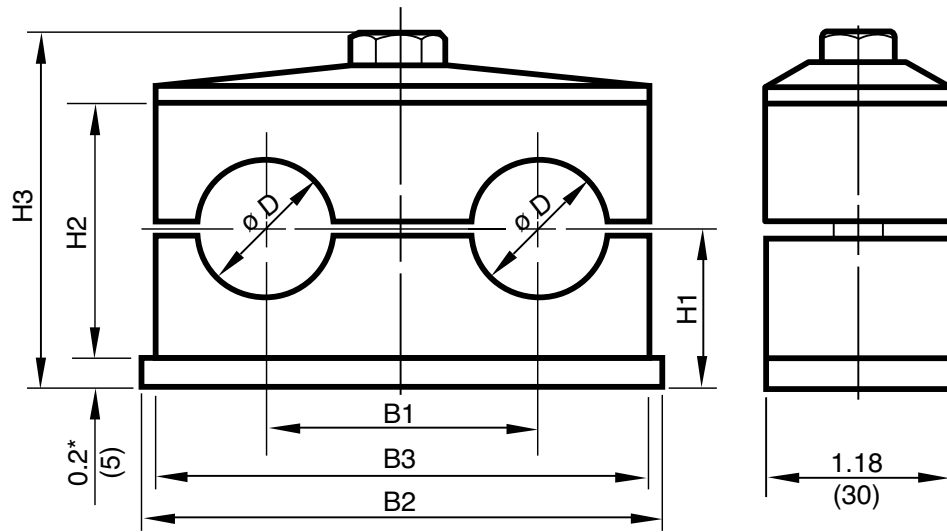
Parts Legend (see page B1-14 to B1-18 to order parts separately)

- | | |
|-----------------|-----------------|
| 1 Hex Head Bolt | 5 Clamp Pair |
| 2 Top Plate | 6 Stacking Bolt |
| 3 Weld Plate | 7 C-Rail Nut |
| 4 Safety Plate | |

Model Code

	HRZ	1	A	9.5 - 9.5	PP	UNC
Series	_____					
HRZ = Standard duty twin clamp with ribbed bore						
HRGZ = Standard duty twin clamp with smooth bore						
Size Family	_____					
1 to 5 (refer to table C on next page)						
Arrangement	_____					
A = Twin clamp with weld plate						
A1 = Twin clamp without weld plate						
A1TM = C-Rail mounted twin clamp						
D = Twin clamp stacking module						
Bore Size (in mm)	_____					
(refer to table C on next page)						
Clamp Material	_____					
PP = Polypropylene						
PA = Polyamide						
AL = Aluminum						
Metal Component Material	_____					
(omit) = Carbon Steel						
A2 = 304 Stainless Steel						
A4 = 316 Stainless Steel						
Thread Type	_____					
UNC = Standard						
M = Metric						

Dimensions HRZ Series All Sizes



* Size 1 UNC weld plate has a thickness of 0.118 (3)

Table C

Size	ϕD Bore Size	Recommended Nominal Size		B1	B2	B3	H1	H2	H3	Bolt Size
		Tube O.D.	Pipe							
1	0.24 (6)	-	-	0.79 (20)	1.46 (37)	1.42 (36)	0.73 (18.5)	1.06 (27)	1.69 (43)	1/4-20 x 1-3/8 (M6 x 35)
	0.25 (6.4)	1/4"	-							
	0.32 (8)	5/16"	-							
	0.37 (9.5)	3/8"	-							
	0.39 (10)	-	1/8"							
	0.41 (10.3)	-	1/8"							
0.47 (12)	-	-								
2	0.50 (12.7)	1/2"	-	1.14 (29)	2.17 (55)	2.09 (53)	0.71 (18)	1.02 (26)	1.71 (43.5)	5/16-18 x 1-3/8 (M8 x 35)
	0.54 (13.7)	-	1/4"							
	0.55 (14)	-	-							
	0.59 (15)	-	-							
	0.63 (16)	5/8"	-							
0.67 (17.1)	-	3/8"								
3	0.75 (19)	3/4"	-	1.42 (36)	2.76 (70)	2.64 (67)	0.93 (23.5)	1.46 (37)	2.15 (54.5)	5/16-18 x 1-3/8 (M8 x 45)
	0.79 (20)	-	-							
	0.84 (21.3)	-	1/2"							
	0.87 (22)	7/8"	-							
	0.91 (23)	-	-							
	0.98 (25)	-	-							
1.0 (25.4)	1"	-								
4	1.05 (26.7)	-	3/4"	1.77 (45)	3.35 (85)	3.23 (82)	1.02 (26)	1.65 (42)	2.34 (59.5)	5/16-18 x 2 (M8 x 50)
	1.1 (28)	-	-							
	1.18 (30)	-	-							
5	1.26 (32)	1-1/4"	-	2.20 (56)	4.33 (110)	4.17 (106)	1.26 (32)	2.13 (54)	2.81 (71.5)	5/16-18 x 2-1/2 (M8 x 60)
	1.33 (33.7)	-	1"							
	1.38 (35)	-	-							
	1.5 (38)	1-1/2"	-							
	1.57 (40)	-	-							
	1.65 (42)	-	1-1/4"							

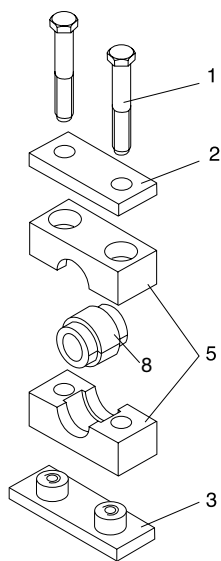
Notes:

1. Other bore diameters are available — Consult factory for details.
2. Dimensions are in inches (mm) and lbs (kg).
3. Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

DIN 3015 & SERIES STRIP CLAMPS

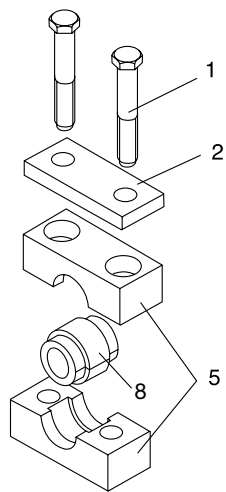
HREL Series

Standard Duty Clamps with Rubber Inserts



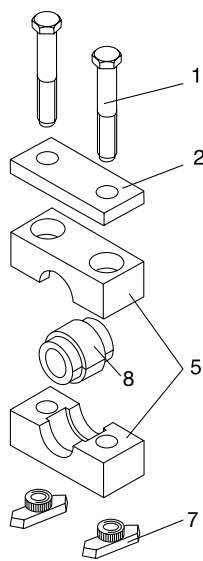
A

Single Clamp
with Weld Plate



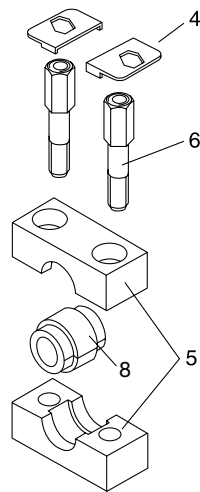
A1

Single Clamp
without Weld Plate



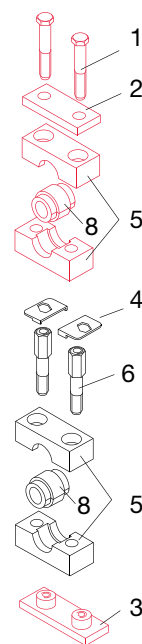
A1TM

Single Clamp
for C-Rail Mounting
(order C-Rail separately)
(size 1 to 8 only)



D

Single Clamp
Stacking Module



A + D

Order one A (red)
arrangement and
one D (black)
arrangement separately.

A maximum of 3 stacking modules is recommended

Parts Legend (B1-14 to B1-18 to order parts separately)

- | | |
|-----------------|-----------------|
| 1 Hex Head Bolt | 5 Clamp Pair |
| 2 Top Plate | 6 Stacking Bolt |
| 3 Weld Plate | 7 C-Rail Nut |
| 4 Safety Plate | 8 Rubber Insert |

Model Code

Series HREL

Size Family 4
4, 6 (refer to table D on next page)

Arrangement A
A = Single clamp with top plate and weld plate
A1 = Single clamp stacking kit
A1TM = C-Rail mounted clamp
D = Single clamp stacking module

Bore Size (in mm) 12.7
(refer to table D on next page)

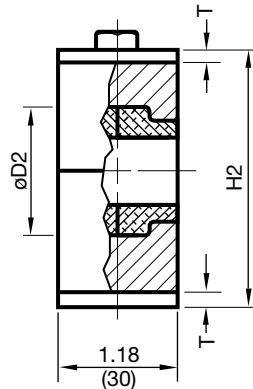
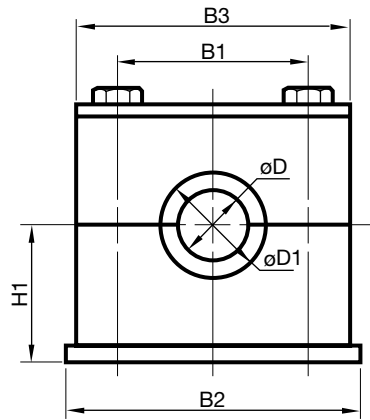
Clamp Material PP
PP = Polypropylene
PA = Polyamide

Metal Components Materials UNC
(omit) = Carbon Steel
A2 = 304 Stainless Steel
A4 = 316 Stainless Steel

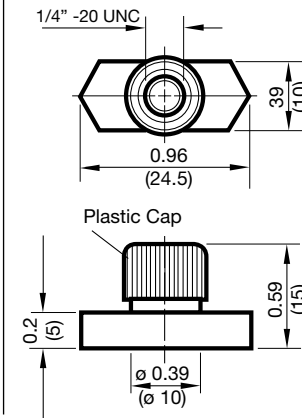
Thread Type UNC
UNC = Standard
M = Metric

Dimensions

All Sizes



C-Rail Nut



C-Rail

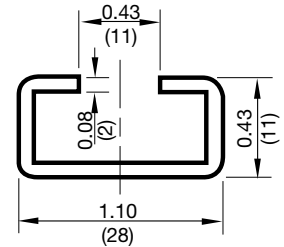


Table D

Clamp Size	EE-Rubber Insert		Recommended Nominal Size				øD1	øD2	H1	H2	B1	B2	B3	T	Bolt Size
	Size	Bore Size øD	Tube O.D.	Pipe	Hose O.D. Min. Max.										
4	2/4 L	0.24 (6)	-	-	0.22	0.24	1.00 (25.5)	1.22 (31)	0.925 (23.5)	1.85 (47)	1.57 (40)	2.32 (59)	2.24 (57)	0.118 (3)	1/4-20 x 1 3/4 (M6 x 45)
		0.32 (8)	5/16"	-	0.30	0.32									
		0.39 (10)	-	1/8"	0.37	0.39									
		0.47 (12)	-	-	0.45	0.47									
		0.50 (12.7)	1/2"	-	0.48	0.50									
		0.55 (14)	-	-	0.53	0.55									
		0.59 (15)	-	-	0.57	0.59									
		0.63 (16)	5/8"	-	0.61	0.63									
		0.68 (17.2)	-	3/8"	0.66	0.68									
0.75 (19)	3/4"	-	0.73	0.75											
6	3/6 L	0.79 (20)	-	1/2"	0.77	0.79	1.54 (39)	1.81 (46)	1.40 (35.5)	2.80 (71)	2.60 (66)	3.46 (88)	3.39 (86)	0.118 (3)	1/4-20x2 3/4 (M6 x 70)
		0.87 (22)	7/8"	-	0.85	0.87									
		0.98 (25)	1"	-	0.96	0.98									
		1.06 (27)	-	3/4"	1.04	1.06									
		1.10 (28)	-	-	1.08	1.10									
		1.18 (30)	-	-	1.16	1.18									
		1.26 (32)	1 1/4"	-	1.24	1.26									

Notes:

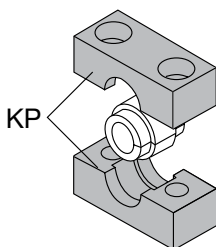
1. Other bore diameters are available — Consult factory for details.

2. Dimensions are in inches (mm) and lbs (kg).

3. Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

Parts

KP = Clamp Pair



HREL 4 KP PP

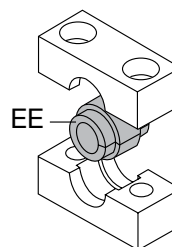
Series _____

Size _____
4, 6 (refer to table above)

Clamp Pair _____

Clamp Material _____
PP = Polypropylene
PA = Polyamide

EE = Rubber Insert (Santoprene TPE 73)



HRES 2/4 L EE 12

Series* _____

Size _____
2/4 L, 3/6 L (refer to table above)

Rubber Insert _____

Bore Size (in mm) _____
(refer to table above)

*HREL series use the same rubber inserts as the HRES series, therefore the model code for them is HRES.

Note:

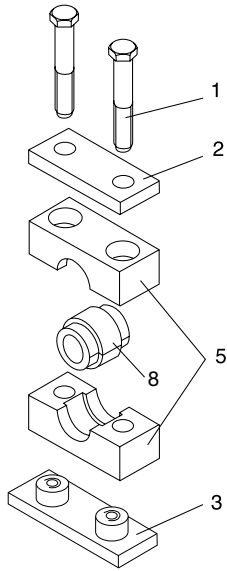
All other components for these clamps are the same as for HRL series standard duty single clamps.

Refer to page B1-14 to B1-18 for details.

DIN 3015 & SERIES STRIP CLAMPS

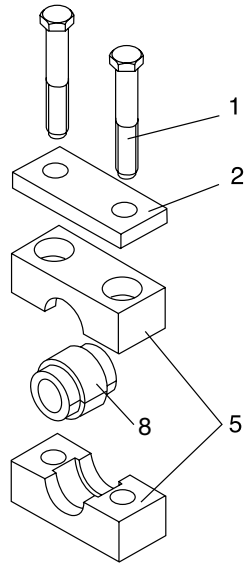
HRES Series

Heavy Duty Clamps with Rubber Inserts



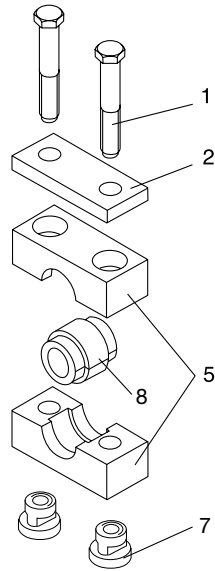
S

Single Clamp with Weld Plate



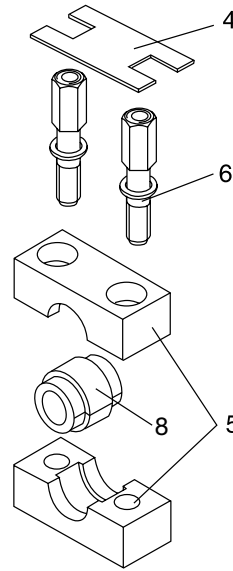
S1

Single Clamp without Weld Plate



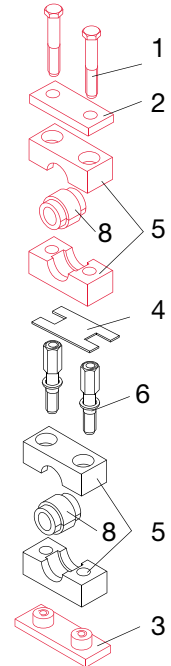
S1TM

Single Clamp for C-Rail Mounting
(size 1 to 4 only)
(order C-Rail separately)



A

Single Clamp Stacking Module
(size 1 to 5 only)



S + A

Order one S (red) arrangement and one A (black) arrangement separately.

A maximum of 3 stacking modules is recommended

Parts Legend (see page B1-14 to B1-18 to order parts separately)

- | | |
|-----------------|-----------------|
| 1 Hex Head Bolt | 5 Clamp Pair |
| 2 Top Plate | 6 Stacking Bolt |
| 3 Weld Plate | 7 C-Rail Nut |
| 4 Safety Plate | 8 Rubber Insert |

Model Code

Series _____ **HRES**

Size Family _____ **4**
2 to 7 (refer to table E on next page)

Arrangement _____ **S**
S = Single clamp with weld plate
S1 = Single clamp stacking kit
S1TM = C-Rail mounted clamp
A = Single clamp stacking module

Bore Size (in mm) _____ **35**
(refer to table E on next page)

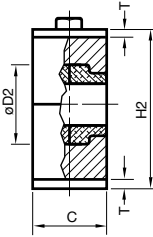
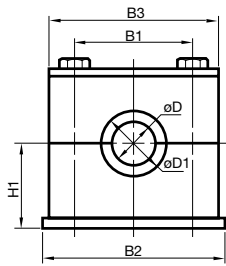
Clamp Material _____ **PP**
PP = Polypropylene
PA = Polyamide

Metal Component Material _____ **UNC**
(omit) = Carbon Steel
A4 = 316 Stainless Steel

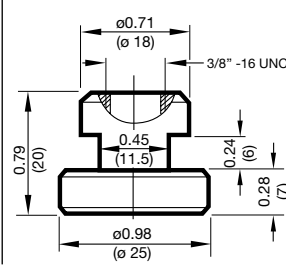
Thread Type _____ **UNC**
UNC = Standard
M = Metric

Dimensions

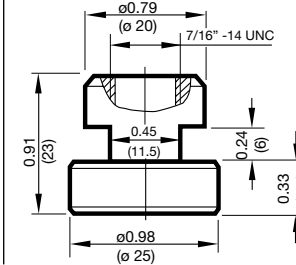
All Sizes



C-Rail Nut (sizes 1-3)



C-Rail Nut (size 4)



C-Rail (all sizes)

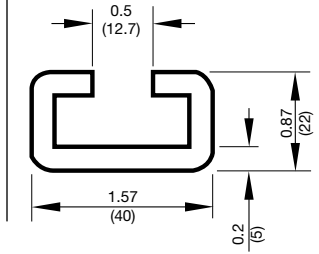


Table E

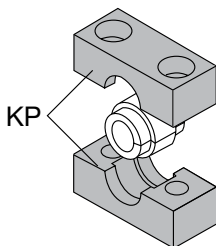
Clamp Size	EE-Rubber Insert Size	Bore Size øD in	Recommended Nominal Size		Hose O.D.		øD1	øD2	C	H1	H2	B1	B2	B3	T	Bolt Size
			Tube O.D.	Pipe	Min.	Max.										
2	2/4 L	0.24 (6)	-	-	0.22	0.24	1.00 (25.5)	1.22 (31)	1.18 (30)	0.925 (23.5)	1.85 (47)	1.57 (40)	2.32 (59)	2.24 (57)	0.118 (3)	3/8-16 x 2 1/4 (M10 x 60)
		0.32 (8)	5/16"	-	0.30	0.32										
		0.39 (10)	-	1/8"	0.37	0.39										
		0.47 (12)	-	-	0.45	0.47										
		0.50 (12.7)	1/2"	-	0.48	0.50										
		0.55 (14)	-	-	0.53	0.55										
		0.59 (15)	-	-	0.57	0.59										
		0.63 (16)	5/8"	-	0.61	0.63										
0.68 (17.2)	-	3/8"	0.66	0.68												
0.75 (19)	3/4"	-	0.73	0.75												
3	3/6 L	0.79 (20)	-	1/2"	0.77	0.79	1.54 (39)	1.81 (46)	1.18 (30)	1.40 (35.5)	2.80 (71)	2.60 (66)	3.46 (88)	3.39 (86)	0.118 (3)	3/8-16 x 2 1/4 (M6 x 70)
		0.87 (22)	7/8"	-	0.85	0.87										
		0.98 (25)	1"	-	0.96	0.98										
		1.06 (26.9)	-	3/4"	1.04	1.06										
		1.10 (28)	-	-	1.08	1.10										
		1.18 (30)	-	-	1.16	1.18										
1.26 (32)	1 1/4"	-	1.24	1.26												
4	4	1.33 (33.7)	-	1"	1.31	1.33	2.56 (65)	2.91 (74)	1.77 (45)	2.11 (53.5)	4.21 (107)	3.56 (90.5)	5.51 (140)	4.53 (115)	0.39 (10)	7/16-14x4 (M12 x 100)
		1.38 (35)	-	-	1.36	1.38										
		1.50 (38)	1 1/2"	-	1.48	1.50										
		1.58 (40)	-	-	1.56	1.58										
		1.65 (42)	-	-	1.63	1.65										
		1.79 (45.5)	-	-	1.77	1.79										
		1.89 (48)	-	1 1/2"	1.87	1.89										
		2.01 (51)	2"	-	1.99	2.01										
2.10 (53.4)	-	-	2.08	2.10												
2.22 (56.4)	-	-	2.20	2.22												
5	5	2.36 (60)	-	2"	2.34	2.36	3.50 (89)	3.86 (98)	2.36 (60)	2.70 (68.5)	5.39 (137)	4.80 (122)	7.09 (180)	5.98 (152)	0.39 (10)	5/8-11x5 1/2 (M16 x 130)
		2.56 (65)	-	-	2.54	2.56										
		2.76 (70)	-	-	2.74	2.76										
		2.87 (73)	-	2 1/2"	2.85	2.87										
		2.99 (76)	3"	-	2.97	2.99										
6	6	3.27 (83)	-	-	3.19	3.27	4.57 (116)	5.20 (132)	3.15 (80)	3.88 (98.5)	7.76 (197)	6.61 (168)	8.86 (225)	8.07 (205)	0.59 (15)	3/4-10x7 1/2 (M20 x 190)
		3.50 (89)	3 1/2"	3"	3.43	3.50										
		3.70 (94)	-	-	3.62	3.70										
		3.98 (101)	4"	3 1/2"	3.90	3.98										
7	7	4.26 (108)	-	-	4.17	4.26	6.06 (154)	6.61 (168)	3.54 (90)	4.47 (113.5)	8.94 (227)	8.07 (205)	10.63 (270)	9.92 (252)	0.59 (15)	7/8-9x8 1/2 (M20 x 220)
		4.49 (114)	-	4"	4.41	4.49										
		5.24 (133)	-	-	5.16	5.24										

Notes:

- Other bore diameters are available — Consult factory for details.
- Dimensions are in inches (mm) and lbs (kg).
- Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

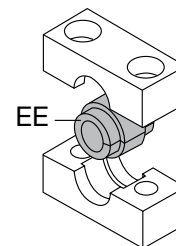
Model Code

KP = Clamp Pair



Series HRES 3
 Size KP
 Clamp Pair PP
 Clamp Material
 PP = Polypropylene
 PA = Polyamide

EE = Rubber Insert (Santoprene TPE 73 - sizes 2-4)
 (Buna NBR 70 - sizes 5-7)



Series HRES 3/6 L
 Size EE 26.9
 Rubber Insert
 Bore Size (in mm)
 (refer to table above)

Note:

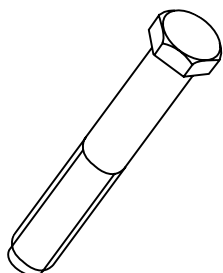
All other components for these clamps are the same as for HRS series heavy duty single clamps. Refer to page B1-14 to B1-18 for details.

DIN 3015 & SERIES STRIP CLAMPS

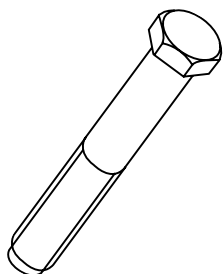
HRL, HRS, & HRZ Series

Parts

Hex Head Bolts

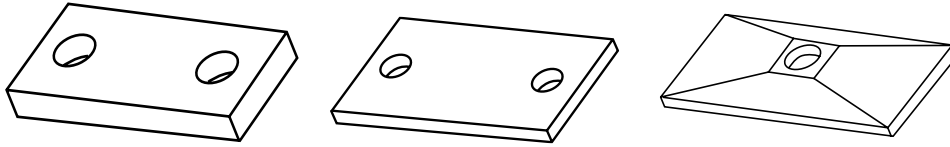


(UNC Threads)		Carbon Steel, Zinc Plated		316 Stainless Steel
Series	Size	Bolt	Model Code	Model Code
HRL	0	1/4"-20 x 1.25"	SCREW H 1/4-20 X 1.25 GR2	SCREW H 1/4-20 X 1.25 SS316
	1	1/4"-20 x 1.25"	SCREW H 1/4-20 X 1.25 GR2	SCREW H 1/4-20 X 1.25 SS316
	2	1/4"-20 x 1.50"	SCREW H 1/4-20 X 1.50 GR2	SCREW H 1/4-20 X 1.50 SS316
	3	1/4"-20 x 1.625"	SCREW H 1/4-20 X 1.625 GR2	SCREW H 1/4-20 X 1.625 SS316
	4	1/4"-20 x 1.75"	SCREW H 1/4-20 X 1.75 GR2	SCREW H 1/4-20 X 1.75 SS316
	5	1/4"-20 x 2.50"	SCREW H 1/4-20 X 2.50 GR2	SCREW H 1/4-20 X 2.50 SS316
	6	1/4"-20 x 2.75"	SCREW H 1/4-20 X 2.75 GR2	SCREW H 1/4-20 X 2.75 SS316
	7	1/4"-20 x 4.00"	SCREW H 1/4-20 X 4.00 GR2	<i>Only available in METRIC – see below</i>
8	1/4"-20 x 5.00"	SCREW H 1/4-20 X 5.00 GR2		
HRS	1	3/8"-16 x 1.75"	SCREW H 3/8-16 X 1.75 GR5	SCREW H 3/8-16 X 1.75 SS316
	2	3/8"-16 x 2.25"	SCREW H 3/8-16 X 2.25 GR5	SCREW H 3/8-16 X 2.25 SS316
	3	3/8"-16 x 2.75"	SCREW H 3/8-16 X 2.75 GR5	SCREW H 3/8-16 X 2.75 SS316
	4	7/16"-14 x 4.00"	SCREW H 7/16-14 X 4.00 GR5	SCREW H 7/16-14 X 4.00 SS316
	5	5/8"-11 x 5.25"	SCREW H 5/8-11 X 5.25 GR5	SCREW H 5/8-11 X 5.25 SS316
	6	3/4"-10 x 7.50"	SCREW H 3/4-10 X 7.50 GR5	SCREW H 3/4-10 X 7.50 SS316
	7	7/8"-9 x 8.50"	SCREW H 7/8-9 X 8.50 GR5	SCREW H 7/8-9 X 8.50 SS316
	8			<i>Only available in METRIC See below</i>
	9			
	10			
HRZ	1	1/4"-20 x 1.25"	SCREW H 1/4-20 X 1.375 GR2	SCREW H 1/4-20 X 1.25 SS316
	2	5/16"-18 x 1.25"	SCREW H 5/16-18 X 1.375 GR2	SCREW H 5/16-18 X 1.25 SS316
	3	5/16"-18 x 1.75"	SCREW H 5/16-18 X 1.875 GR2	SCREW H 5/16-18 X 1.75 SS316
	4	5/16"-18 x 2.00"	SCREW H 5/16-18 X 2.00 GR2	SCREW H 5/16-18 X 2.00 SS316
	5	5/16"-18 x 2.50"	SCREW H 5/16-18 X 2.50 GR2	SCREW H 5/16-18 X 2.50 SS316



(METRIC Threads)		Carbon Steel, Zinc Plated		316 Stainless Steel
Series	Size	Bolt	Model Code	Model Code
HRL	0	M6 x 30	SCREW H M6 x 30-8.8	SCREW H M6 x 30 A4
	1	M6 x 30	SCREW H M6 x 30-8.8	SCREW H M6 x 30 A4
	2	M6 x 35	SCREW H M6 x 35-8.8	SCREW H M6 x 35 A4
	3	M6 x 40	SCREW H M6 x 40-8.8	SCREW H M6 x 40 A4
	4	M6 x 45	SCREW H M6 x 45-8.8	SCREW H M6 x 45 A4
	5	M6 x 60	SCREW H M6 x 60-8.8	SCREW H M6 x 60 A4
	6	M6 x 70	SCREW H M6 x 70-8.8	SCREW H M6 x 70 A4
	7	M6 x 100	SCREW H M6 x 100-8.8	SCREW H M6 x 100 A4
HRS	8	M6 x 125	SCREW H M6 x 125-8.8	SCREW H M6 x 125 A4
	1	M10 x 45	SCREW H M10 x 45-8.8	SCREW H M10 x 45 A4
	2	M10 x 60	SCREW H M10 x 60-8.8	SCREW H M10 x 60 A4
	3	M10 x 70	SCREW H M10 x 70-8.8	SCREW H M10 x 70 A4
	4	M12 x 100	SCREW H M12 x 100-8.8	SCREW H M12 x 100 A4
	5	M16 x 130	SCREW H M16 x 130-8.8	SCREW H M16 x 130 A4
	6	M20 x 190	SCREW H M16 x 190-8.8	SCREW H M16 x 190 A4
	7	M24 x 220	SCREW H M24 x 220-8.8	SCREW H M24 x 220 A4
	8	M30 x 300	SCREW H M30 x 300-8.8	SCREW H M30 x 300 A4
	9	M30 x 450	SCREW H M30 x 450-8.8	SCREW H M30 x 450 A4
10	M30 x 560	SCREW H M30 x 560-8.8	SCREW H M30 x 560 A4	
HRZ	1	M6 x 35	SCREW H M6 x 35-8.8	SCREW H M6 x 35 A4
	2	M8 x 35	SCREW H M8 x 35-8.8	SCREW H M8 x 35 A4
	3	M8 x 45	SCREW H M8 x 45-8.8	SCREW H M8 x 45 A4
	4	M8 x 50	SCREW H M8 x 50-8.8	SCREW H M8 x 50 A4
	5	M8 x 60	SCREW H M8 x 60-8.8	SCREW H M8 x 60 A4

Top Plates



Model Code

HRL 3 DP ST ZN

Series _____
 HRL, HRS, HRZ

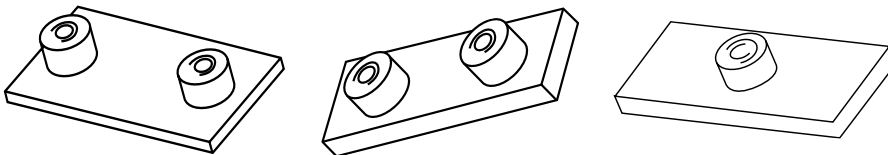
Clamp Size _____

Top Plate _____

Material _____
 ST = Carbon Steel
 A2 = 304 Stainless Steel (Not available for HRS series)
 A4 = 316 Stainless Steel

Material Finish _____
 (omit) A2 and A4 Stainless Steel
 ZN = Zinc Plated
 ZN Ni = Zinc Nickel Plated (Standard for HRL and HRZ)

Weld Plates



Model Code

HRL 3 AP ST UNC BL

Series _____
 HRL, HRS, HRZ

Clamp Size _____

Weld Plate _____

Material _____
 ST = Carbon Steel
 A2 = 304 Stainless Steel (Not available for HRS series)
 A4 = 316 Stainless Steel

Thread Type _____
 UNC = Standard
 M = Metric

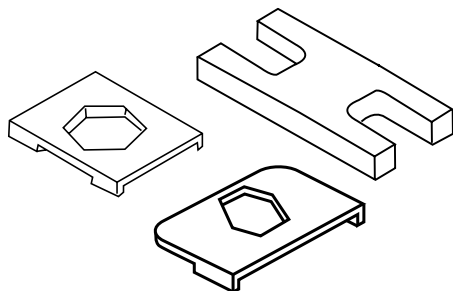
Material Finish _____
 (omit) A2 and A4 Stainless Steel
 BL = Phosphate Coated (Standard)
 ZN = Zinc Plated
 ZN Ni = Zinc Nickel Plated

DIN 3015 & SERIES STRIP CLAMPS

HRL, HRS, & HRZ Series (cont'd)

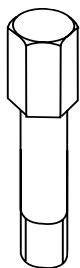
Parts

Safety Plates

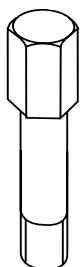


		Carbon Steel, Zinc Plated	316 Stainless Steel
Series	Size	Model Code	Model Code
HRL	0-6	HRL 0-6 SIP ST ZN	HRL 0-6 SIP A4
HRS	1	HRS 1 SIP ST ZN	HRS 1 SIP A4
	2	HRS 2 SIP ST ZN	HRS 2 SIP A4
	3	HRS 3 SIP ST ZN	HRS 3 SIP A4
	4	HRS 4 SIP ST ZN	HRS 4 SIP A4
	5	HRS 5 SIP ST ZN	HRS 5 SIP A4
	6	HRS 6 SIP ST ZN	HRS 6 SIP A4
	7	HRS 7 SIP ST ZN	HRS 7 SIP A4
HRZ	1	HRZ 1 SIP ST ZN	HRZ 1 SIP A4
	2-5	HRZ 2/5 SIP ST ZN	HRZ 2/5 SIP A4

Stacking Bolts

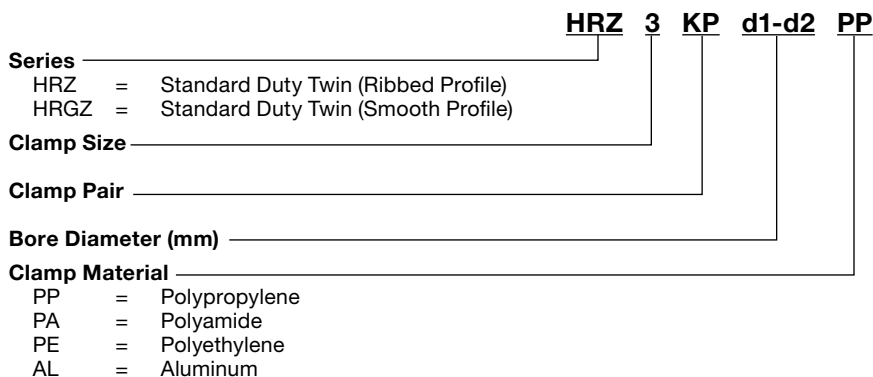
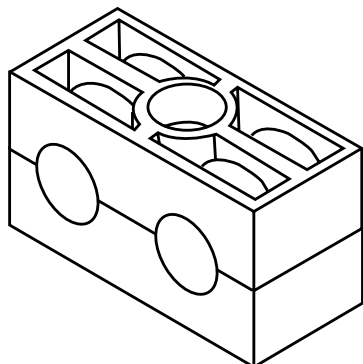
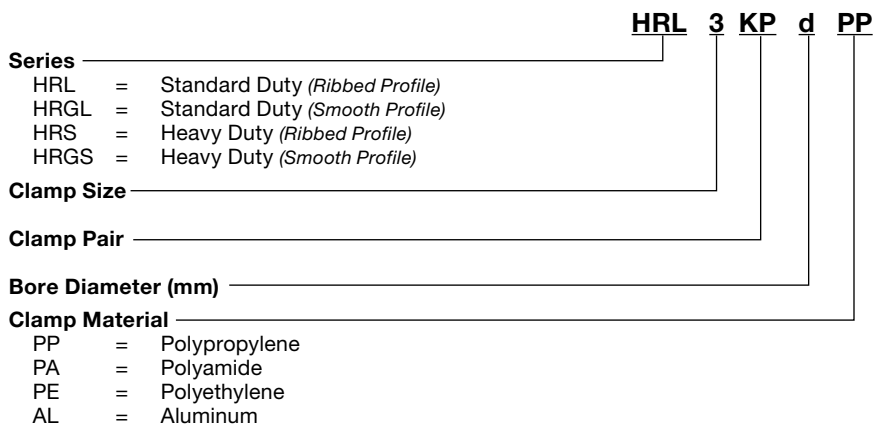
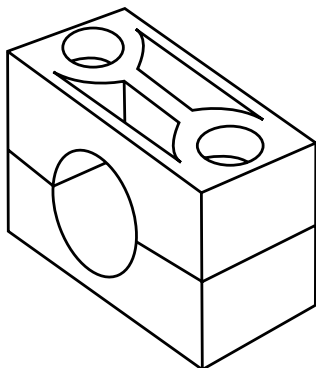


(UNC Threads)		Carbon Steel, Zinc Plated	316 Stainless Steel
Series	Size	Model Code	Model Code
HRL	0 & 1	HRL/Z 0+1 AF ST UNC ZN	HRL/Z 0+1 AF A4 UNC
	2	HRL 2 AF ST UNC ZN	HRS 2 AF A4 UNC
	3	HRL 3 AF ST UNC ZN	HRS 3 AF A4 UNC
	4	HRL 4 AF ST UNC ZN	HRS 4 AF A4 UNC
	5	HRL 5 AF ST UNC ZN	HRS 5 AF A4 UNC
	6	HRL 6 AF ST UNC ZN	HRS 6 AF A4 UNC
HRS	1	HRS 1 AF ST UNC ZN	HRS 1 AF A4 UNC
	2	HRS 2 AF ST UNC ZN	HRS 2 AF A4 UNC
	3	HRS 3 AF ST UNC ZN	HRS 3 AF A4 UNC
	4	HRS 4 AF ST UNC ZN	HRS 4 AF A4 UNC
	5	HRS 5 AF ST UNC ZN	HRS 5 AF A4 UNC
	6	HRS 6 AF ST UNC ZN	HRS 6 AF A4 UNC
	7	HRS 7 AF ST UNC ZN	HRS 7 AF A4 UNC
HRZ	1	HRL/Z 0+1 AF ST UNC ZN	HRL/Z 0+1 AF A4 UNC
	2	HRZ 2 AF ST UNC ZN	HRZ 2 AF A4 UNC
	3	HRZ 3 AF ST UNC ZN	HRZ 3 AF A4 UNC
	4	HRZ 4 AF ST UNC ZN	HRZ 4 AF A4 UNC
	5	HRZ 5 AF ST UNC ZN	HRZ 5 AF A4 UNC

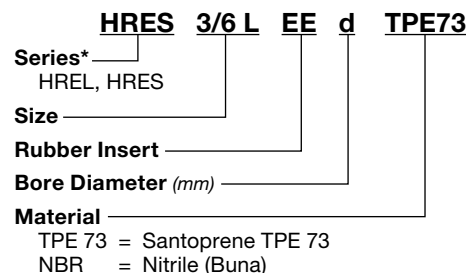
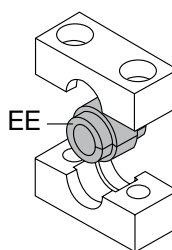
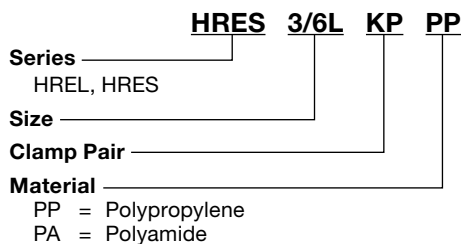
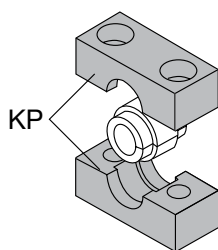


(METRIC Threads)		Carbon Steel, Zinc Plated	316 Stainless Steel
Series	Size	Model Code	Model Code
HRL	0 & 1	HRL/Z 0+1 AF ST M ZN	HRL/Z 0+1 AF A4 M
	2	HRL 2 AF ST M ZN	HRL 2 AF A4 UNC
	3	HRL 3 AF ST M ZN	HRL 3 AF A4 UNC
	4	HRL 4 AF ST M ZN	HRL 4 AF A4 UNC
	5	HRL 5 AF ST M ZN	HRL 5 AF A4 UNC
	6	HRL 6 AF ST M ZN	HRL 6 AF A4 UNC
HRS	1	HRS 1 AF10 ST M ZN	HRS 1 AF10 A4 M
	2	HRS 2 AF10 ST M ZN	HRS 2 AF10 A4 M
	3	HRS 3 AF10 ST M ZN	HRS 3 AF10 A4 M
	4	HRS 4 AF ST M ZN	HRS 4 AF A4 M
	5	HRS 5 AF ST M ZN	HRS 5 AF A4 M
	6	HRS 6 AF ST M ZN	HRS 6 AF A4 M
	7	HRS 7 AF ST M ZN	HRS 7 AF A4 M
HRZ	1	HRL/Z 0+1 AF ST M ZN	HRL/Z 0+1 AF A4 M
	2	HRZ 2 AF ST M ZN	HRZ 2 AF A4 M
	3	HRZ 3 AF ST M ZN	HRZ 3 AF A4 M
	4	HRZ 4 AF ST M ZN	HRZ 4 AF A4 M
	5	HRZ 5 AF ST M ZN	HRZ 5 AF A4 M

Clamp Pairs



HREL & HRES Series Clamps with Rubber Inserts



*HREL series use the same rubber inserts as the HRES series, therefore the model code for them is HRES.

Note:

All other components for these clamps are the same as for HRL series standard duty single clamps.

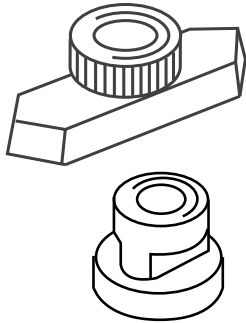
Refer to page B1-14 to B1-18 for details.

DIN 3015 & SERIES STRIP CLAMPS

HRL, HRS, & HRZ Series

Parts

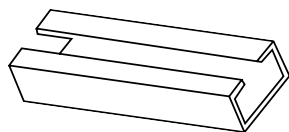
C-Rail Nuts



(UNC Threads)		Carbon Steel, Zinc Plated	316 Stainless Steel
Series	Size	Model Code	Model Code
HRL	0	HRL 0-6 TM1/4 UNC ST ZN	HRL 0-6 TM 1/4 UNC A4
	1		
	2		
	3		
	4		
	5		
	6		
	7		
HRS	1	HRS 1-3 TM3/8 UNC ST ZN	HRS 1-3 TM3/8 UNC A4
	2		
	3	HRS 4 TM7/16 UNC ST ZN	HRS 4 TM7/16 UNC A4
	4		
HRZ	1	HRL 0-6 TM1/4 UNC ST ZN	HRL 0-6 TM1/4 UNC A4
	2		
	3	HRZ 2-5 TM5/16 UNC ST ZN	HRZ 2-5 TM5/16 UNC A4
	4		
	5		

(METRIC Threads)		Carbon Steel, Zinc Plated	316 Stainless Steel
Series	Size	Model Code	Model Code
HRL	0	HRL 0-6 TM6 M ST ZN	HRL 0-6 TM6 M A4
	1		
	2		
	3		
	4		
	5		
	6		
	7		
HRS	1	HRS 1-3 TM10 M ST ZN	HRS 1-3 TM10 M A4
	2		
	3	HRS 4 TM12 M ST ZN	HRS 4 TM12 M A4
	4		
HRZ	1	HRL 0-6 TM6 M ST ZN	HRL 0-6 TM6 M A4
	2		
	3	HRZ 2-5 TM8 M ST ZN	HRZ 2-5 TM8 M A4
	4		
	5		

C-Rail



		Carbon Steel, Phosphate Coated	316 Stainless Steel
Series	Size	Model Code	Model Code
HRL	1M	HRL TS 28X11 ST BL 1M	HRL TS 28X11 A4 1M
	2M	HRL TS 28X11 ST BL 2M	HRL TS 28X11 A4 2M
HRS	1M	HRS TS 40X22 ST BL 1M	HRS TS 40X22 A4 1M
	2M	HRS TS 40X22 ST BL 2M	HRS TS 40X22 A4 2M
HRZ	1M	HRL TS 28X11 ST BL 1M	HRL TS 28X11 A4 1M
	2M	HRL TS 28X11 ST BL 2M	HRL TS 28X11 A4 2M

HRL & HRS Series with Stainless Steel Metal Components

HRL – Standard Duty HRS – Heavy Duty



Description

Clamps with stainless steel metal components are available for corrosive environments. Our complete line of DIN 3015 clamps are available in stainless steel. Some models are special order, which may require minimum quantities, and/or extended delivery times. Listed here are the standard duty and heavy duty single clamps with weld plate.

304 Stainless Steel: (A2)

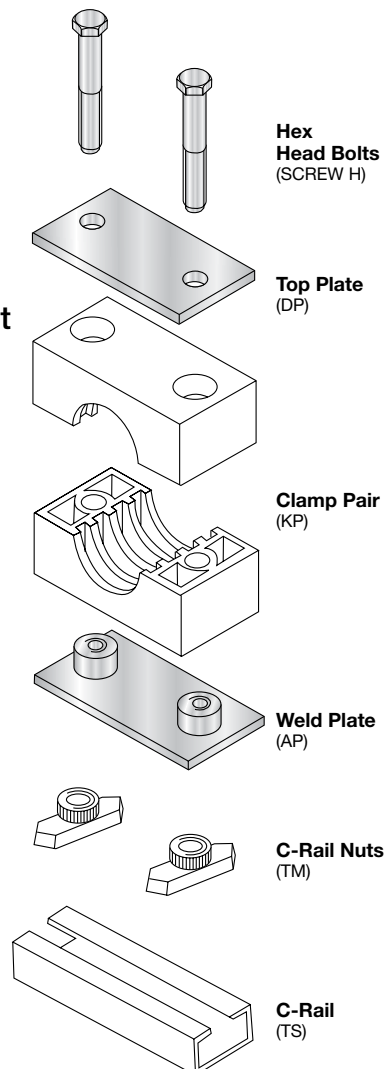
- Available from stock
- UNC bolts

316 Stainless Steel: (A4)

- Salt water resistance
- HRL sizes 1-5 in UNC - available from stock
- HRS sizes 1-5 in UNC
- Larger sizes in metric only

Typical Arrangement

Single Clamp with Weld Plate (HRL...A...) for Standard Duty (HRS...S...) for Heavy Duty



316 Stainless Steel UNC Stocked Program

Light Duty Series (HRL)

Size	Model Code	Part Number
Arrangements (complete with PP clamp pair)		
		XX = bore diameter A unique part number exists for each individual clamp bore diameter. A complete model code is sufficient for ordering. Use the dimensions table for standard HRL clamps on page B1-5 for available bore sizes.
1	HRL 1 A XX PP A4 UNC	
2	HRL 2 A XX PP A4 UNC	
3	HRL 3 A XX PP A4 UNC	
4	HRL 4 A XX PP A4 UNC	
5	HRL 5 A XX PP A4 UNC	
Weld Plates		
1	HRL 1 AP A4 UNC	00268617
2	HRL 2 AP A4 UNC	03001899
3	HRL 3 AP A4 UNC	00261220
4	HRL 4 AP A4 UNC	00261221
5	HRL 5 AP A4 UNC	00261222
Top Plates		
1	HRL 1 DP A4	00261108
2	HRL 2 DP A4	00261109
3	HRL 3 DP A4	00261110
4	HRL 4 DP A4	00261111
5	HRL 5 DP A4	00261112
Ext Hex Screws		
1	Screw H 1/4-20 x 1.25 SS316	02700627
2	Screw H 1/4-20 x 1.50 SS316	02700906
3	Screw H 1/4-20 x 1.625 SS316	02703611
4	Screw H 1/4-20 x 1.75 SS316	02700157
5	Screw H 1/4-20 x 2.50 SS316	02700646

Heavy Duty Series (HRS)

Size	Model Code	Part Number
Arrangements (complete with PP clamp pair)		
		XX = bore diameter A unique part number exists for each individual clamp bore diameter. A complete model code is sufficient for ordering. Use the dimensions table for standard HRS clamps on page B1-7 for available bore sizes.
1	HRS 1 S XX PP A4 UNC	
2	HRS 2 S XX PP A4 UNC	
3	HRS 3 S XX PP A4 UNC	
4	HRS 4 S XX PP A4 UNC	
5	HRS 5 S XX PP A4 UNC	
Weld Plates		
1	HRS 1 AP A4 UNC	00268617
2	HRS 2 AP A4 UNC	03001899
3	HRS 3 AP A4 UNC	00261220
4	HRS 4 AP A4 UNC	00261221
5	HRS 5 AP A4 UNC	00261222
Top Plates		
1	HRS 1 DP A4	00261108
2	HRS 2 DP A4	00261109
3	HRS 3 DP A4	00261110
4	HRS 4 DP A4	00261111
5	HRS 5 DP A4	00262022
Ext Hex Screws		
1	Screw H 3/8-16x1.75 SS316	02701227
2	Screw H 3/8-16x2.25 SS316	02701234
3	Screw H 3/8-16x2.75 SS316	02702474
4	Screw H 3/8-16x4.00 SS316	02702475
5	Screw H 3/8-16x5.25 SS316	02703106

DIN 3015 & SERIES STRIP CLAMPS

HRL Standard Duty

304 stainless steel (A2) metal components

Size	Model Code	Part Number
Arrangements (complete with PP clamp pair)		
		XX = bore diameter
1	HRL 1 A XX PP A2 UNC	A unique part number exists
2	HRL 2 A XX PP A2 UNC	for each individual clamp bore
3	HRL 3 A XX PP A2 UNC	diameter. A complete model
4	HRL 4 A XX PP A2 UNC	code is sufficient for ordering.
5	HRL 5 A XX PP A2 UNC	Use the dimensions table for
6	HRL 6 A XX PP A2 UNC	standard HRL clamps on page
		B1-5 for available bore sizes.
Weld Plates		
1	HRL 1 AP A2 UNC	02701275
2	HRL 2 AP A2 UNC	02701276
3	HRL 3 AP A2 UNC	02701277
4	HRL 4 AP A2 UNC	02701278
5	HRL 5 AP A2 UNC	02701279
6	HRL 6 AP A2 UNC	02701280
Top Plates		
1	HRL 1 DP A2	02701283
2	HRL 2 DP A2	02701284
3	HRL 3 DP A2	02701285
4	HRL 4 DP A2	02701286
5	HRL 5 DP A2	02701287
6	HRL 6 DP A2	02701288
Ext Hex Screws (316 Stainless Steel)		
1	SCREW H 1/4-20 x 1.25 SS316	02700627
2	SCREW H 1/4-20 x 1.50 SS316	02700906
3	SCREW H 1/4-20 x 1.625 SS316	02703611
4	SCREW H 1/4-20 x 1.75 SS316	02700157
5	SCREW H 1/4-20 x 2.50 SS316	02700646
6	SCREW H 1/4-20 x 2.75 SS316	02701205
HRL C-Rail		
1	HRL TS 28 x 11 A4 2M	00261229
HRL C-Rail Nuts		
1	HRL 0-6 TM 1/4 UNC A4	03035720

316 stainless steel (A4) metal components (metric)

Size	Model Code	Part Number
Arrangements (complete with PP clamp pair)		
		XX = bore diameter
1	HRL 1 A XX PP A4 M	A unique part number exists
2	HRL 2 A XX PP A4 M	for each individual clamp bore
3	HRL 3 A XX PP A4 M	diameter. A complete model
4	HRL 4 A XX PP A4 M	code is sufficient for ordering.
5	HRL 5 A XX PP A4 M	Use the dimensions table for
6	HRL 6 A XX PP A4 M	standard HRL clamps on page
		B1-5 for available bore sizes.
Weld Plates (metric thread)		
1	HRL 1 AP A4 M	00268508
2	HRL 2 AP A4 M	00268509
3	HRL 3 AP A4 M	00268510
4	HRL 4 AP A4 M	00268511
5	HRL 5 AP A4 M	00261215
6	HRL 6 AP A4 M	00261216
Top Plates		
1	HRL 1 DP A4	00261108
2	HRL 2 DP A4	00261109
3	HRL 3 DP A4	00261110
4	HRL 4 DP A4	00261111
5	HRL 5 DP A4	00261112
6	HRL 6 DP A4	00261113
Hex Head Bolts		
1	SCREW H M6X30 A4	00603039
2	SCREW H M6X35 A4	00602136
3	SCREW H M6X40 A4	00602138
4	SCREW H M6X45 A4	00602140
5	SCREW H M6X60 A4	00602142
6	SCREW H M6X70 A4	00602144

HRS Heavy Duty

316 stainless steel (A4) metal components (metric)

Size	Model Code	Part Number
Arrangements (complete with PP clamp pair)		
		XX = bore diameter
1	HRS 1 S XX PP A4 M	A unique part number exists
2	HRS 2 S XX PP A4 M	for each individual clamp bore
3	HRS 3 S XX PP A4 M	diameter. A complete model
4	HRS 4 S XX PP A4 M	code is sufficient for ordering.
5	HRS 5 S XX PP A4 M	Use the dimensions table for
6	HRS 6 S XX PP A4 M	standard HRS clamps on page
		B1-7 for available bore sizes.
Weld Plates (metric thread)		
1	HRS 1 AP A4 M	00263646
2	HRS 2 AP A4 M	00263647
3	HRS 3 AP A4 M	00263648
4	HRS 4 AP A4 M	00267902
5	HRS 5 AP A4 M	00263700
6	HRS 6 AP A4 M	00263701
Top Plates		
1	HRS 1 DP A4	00262018
2	HRS 2 DP A4	00262019
3	HRS 3 DP A4	00262020
4	HRS 4 DP A4	00262021
5	HRS 5 DP A4	00262022
6	HRS 6 DP A4	00262023
Hex Head Bolts (metric)		
1	SCREW H M10X45 A4	00602151
2	SCREW H M10X60 A4	00602153
3	SCREW H M10X70 A4	00602155
4	SCREW H M12X100 A4	00602157
5	SCREW H M16X130 A4	00602160
6	SCREW H M20X190 A4	00602163
HRS C-Rail		
1	HRS TS 40X22 A4 2M	00263359
HRS C-Rail Nuts		
1	HRS TM 10 A4 M	00262736
2	HRS TM 12 A4 M	00262739

HRRL & HRRLE Series

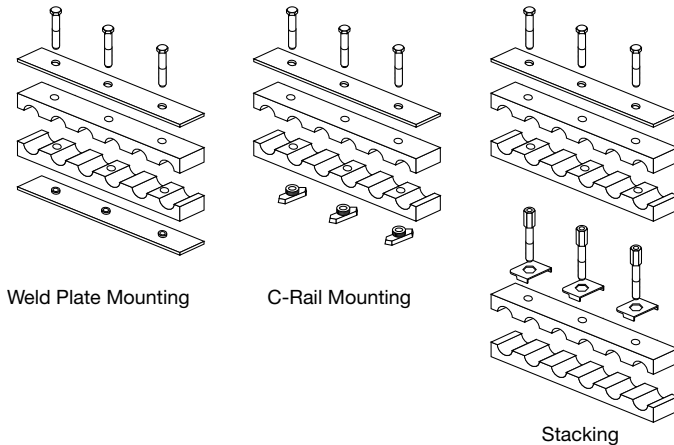
Series Strip Clamps

Description

For OEM's requiring solutions for multiple line runs HYDAC offers customized series strips. These clamps reduce inventory and installation time, while providing a more compact solution than multiple DIN 3015 clamps. The design and dimensions are based on the DIN 3015 specifications set forth for single and twin clamps. The Series Strip Program, echoes that of the DIN 3015 Clamps in that it offers similar arrangements, sizes, options, and model coding.

Arrangements

HRRL Series: Standard Duty

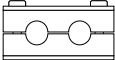


Number of Lines & Bolts

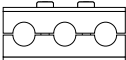
HRRL Series: Standard Duty

(diameter range: 6 to 25.4 mm)

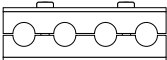
2 Lines / 2 Bolts (HRRL...2 X.../2...)



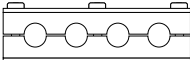
3 Lines / 2 Bolts (HRRL...3 X.../2...)



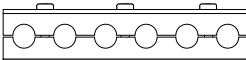
4 Lines / 2 Bolts (HRRL...4 X.../2...)



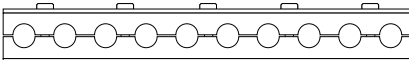
4 Lines / 3 Bolts (HRRL...4 X.../3...)



6 Lines / 3 Bolts (HRRL...6 X.../3...)

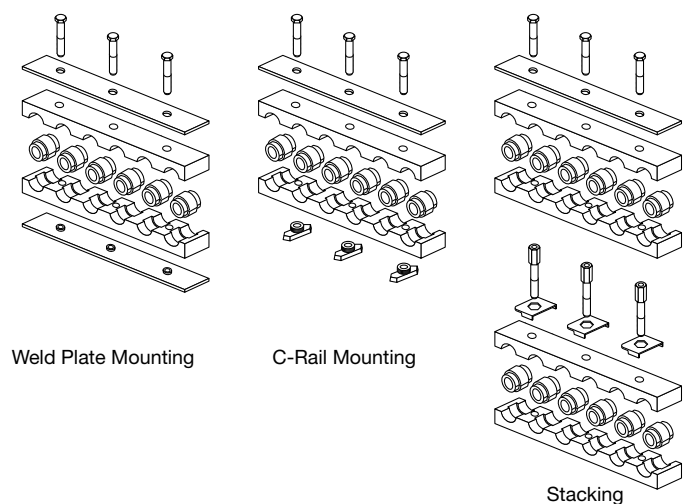


10 Lines / 5 Bolts (HRRL...10 X.../5...)



Arrangements

HRRLE Series: Heavy Duty with Rubber Inserts



Number of Lines & Bolts

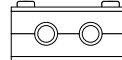
HRRLE Series: Heavy Duty with Rubber Inserts

(diameter range: 6 to 56.4 mm)

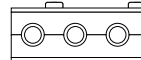
2 Lines / 1 Bolt (HRRLE...2 X.../1...)



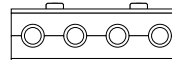
2 Lines / 2 Bolts (HRRLE...2 X.../2...)



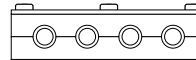
3 Lines / 2 Bolts (HRRLE...3 X.../2...)



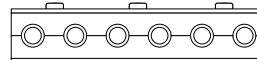
4 Lines / 2 Bolts (HRRLE...4 X.../2...)



4 Lines / 3 Bolts (HRRLE...4 X.../3...)



6 Lines / 3 Bolts (HRRLE...6 X.../3...)



Ordering

Series Strip Clamps are a custom product which must be quoted on an individual project basis. As with DIN 3015 Clamps, the Series Strip Clamps can be ordered as complete arrangements or as individual components. Series Strip Clamps are available with differing bore sizes. Contact **HYDAC** at **1.877.GO.HYDAC** (1.877.464.9322) with your specifications to request a quotation.