

# Metric Size R(PT) Thread Type

- One -Touch Fittings
- Compact One -Touch Fittings
- Speed Controllers
- Metal Body Speed Controllers
- **Rotary Joints**
- Stop Fittings
- Check Valves
- Ball Valves
- Main Blocks
- Hand Valves
- Hand Slide Valves
- Two-Touch Fittings

# ROTARY JOINTS

### Application

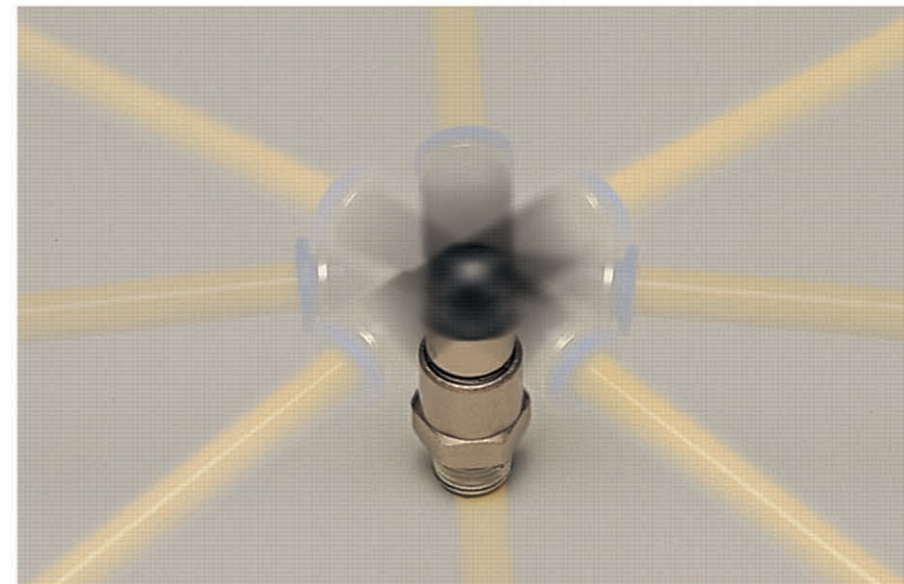
- Used for supplying compressed air at swiveling or swinging connections.
- Used for index tables and industrial robots.

### Feature

- Built in bearings, suitable for high-speed swiveling pneumatic connections..

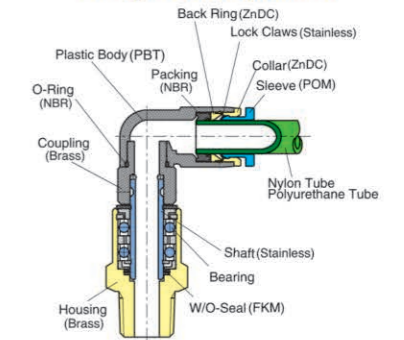
### Specification

Fluid	Air(No other gases or liquids)	
Working Pressure Range	0~150PSI	0~9Kgf/cm <sup>2</sup> (0~900kPa)
Negative Pressure	-29.50 in Hg	-750mmHg(10Torr)
Temperature Range	32~140° F	0~60° C
Applicable Tube Material	Polyurethane and Nylon	

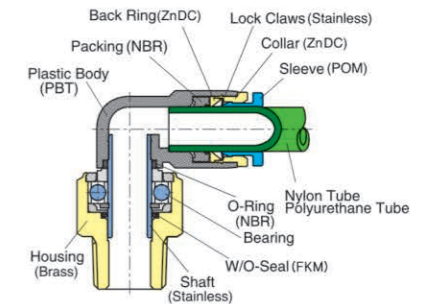


### Structural Diagram

#### ▼High Rotary Joint



#### ▼Rotary Joint



### Product Code System

**NHRC 06-01**

①                      ②                      ③

① Type

② Tube Dia(∅D)

Code	04	06	08	10	12
Dia	∅4	∅6	∅8	∅10	∅12

③ Thread Size(T)

	Metric Size		Taper Pipe Thread			
Code	M5	M6	01	02	03	04
Size	M5×0.8	M6×1.0	R1/8	R1/4	R3/8	R1/2

### Number of Rotations

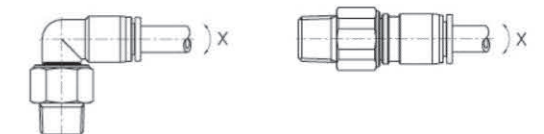
	Tube Dia	∅4	∅6	∅8	∅10	∅12	
r.p.m	Low	NRC, NRL	500	500	400	300	250
	High	NHRC, NHRL, NHRS, NHRF	1,500	1,200	1,200	1,000	1,000

### ⚠ CAUTION

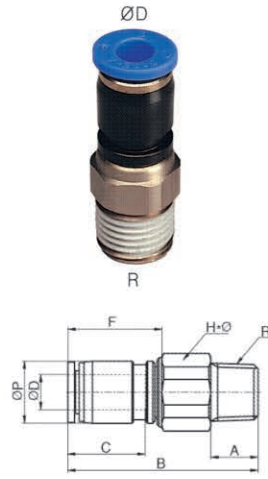
-Be sure to read "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.

### ⚠ WARNING

- When using at high speed, use PU tube.
- Nylon or other hard tube can cause overload of the rotation.



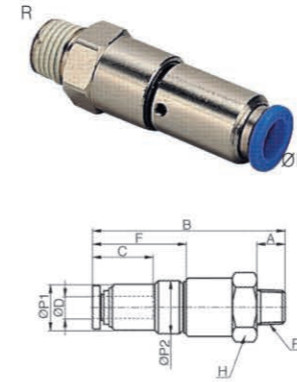
**NRC**  
Straight



MODEL[ØD-T] Tube(Metric)-Thread(R)

MODEL	ØD	R	F	ØP	C	A	B	H×Ø	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NRC 04-M5	4	M5	17.7	10.4	16	3.5	33.4	12×13	500	2	12.2	100
NRC 04-M6	4	M6	17.7	10.4	16	4.5	33.9	12×13	500	3	12.6	100
NRC 04-01	4	R1/8	17.7	10.4	16	8	34.7	12×13	500	3	14.2	100
NRC 06-M5	6	M5	18.5	12.4	17	3.5	36.5	14×15	500	2	17.1	100
NRC 06-M6	6	M6	18.5	12.4	17	4.5	36.5	14×15	500	3	19.1	100
NRC 06-01	6	R1/8	18.5	12.4	17	8	36.5	14×15	500	4	16.9	50
NRC 06-02	6	R1/4	20.2	12.4	17	11	36.5	14×15	500	4	21.9	50
NRC 08-01	8	R1/8	20.2	14.4	18.5	8	43.6	17×18	400	6	30.2	50
NRC 08-02	8	R1/4	20.2	14.4	18.5	11	43.6	17×18	400	6	30.6	50
NRC 08-03	8	R3/8	22.8	14.4	18.5	12	43.6	17×18	400	6	39.8	50
NRC 10-03	10	R3/8	29.6	18	21	12	56.1	22×24	300	7.5	66.7	25
NRC 10-04	10	R1/2	29.6	18	21	15	57.1	22×24	300	7.5	77.7	25
NRC 12-03	12	R3/8	31.5	21.8	22.5	12	61.5	24×26	250	9	95.6	25
NRC 12-04	12	R1/2	31.5	21.8	22.5	15	61.5	24×26	250	9	101.1	25

**NHRC**  
Straight



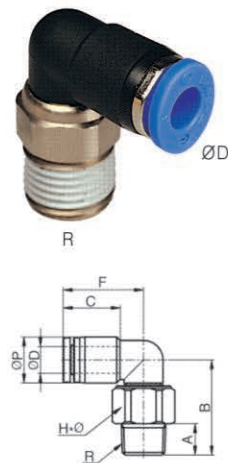
MODEL[ØD-T] Tube(Metric)-Thread(R)

MODEL	ØD	R	F	C	B	ØP1	ØP2	A	H	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRC 04-M5	4	M5	21.7	16	42.4	10.4	11	3.5	12	1500	2	23.7	100
NHRC 04-M6	4	M6	21.7	16	43.2	10.4	11	4.5	12	1500	3	23.8	100
NHRC 04-01	4	R1/8	21.7	16	46.7	10.4	11	8	12	1500	3	28.2	50
NHRC 06-01	6	R1/8	24	17	52	13	15	8	17	1200	4	27	50
NHRC 06-02	6	R1/4	24	17	52	13	15	11	17	1200	4	55.4	50
NHRC 08-01	8	R1/8	24.3	18.5	52.3	14.4	15	8	17	1200	6	51.5	50
NHRC 08-02	8	R1/4	24.3	18.5	55.3	14.4	15	11	17	1200	6	57.4	50
NHRC 10-03	10	R3/8	29.3	21	64.8	18	20	12	24	1000	7.5	114.1	25
NHRC 10-04	10	R1/2	29.3	21	67.8	18	20	15	24	1000	7.5	130.1	25
NHRC 12-03	12	R3/8	32	22.5	67.5	21.8	20	12	24	1000	9	119.1	25
NHRC 12-04	12	R1/2	32	22.5	70.5	21.8	20	15	24	1000	9	135.2	25

Rotary Joints

Rotary Joints

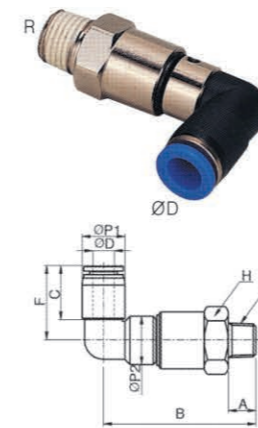
**NRL**  
Elbow



MODEL[ØD-T] Tube(Metric)-Thread(R)

MODEL	ØD	R	F	ØP	C	A	B	H×Ø	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NRL 04-M5	4	M5	20.2	10.4	16	3.5	20.7	12×13	500	2	12.3	100
NRL 04-M6	4	M6	20.2	10.4	16	4.5	21.2	12×13	500	3	13	100
NRL 04-01	4	R1/8	20.2	10.4	16	8	22	12×13	500	4	13.7	100
NRL 06-M5	6	M5	22.9	12.4	17	3.5	24.2	14×15	500	2	17.9	50
NRL 06-M6	6	M6	22.9	12.4	17	4.5	24.2	14×15	500	3	19.8	50
NRL 06-01	6	R1/8	22.9	12.4	17	8	24.2	14×15	500	4	17.6	50
NRL 06-02	6	R1/4	22.9	12.4	17	11	26.2	14×15	500	4	22.2	50
NRL 08-01	8	R1/8	25.9	14.4	18.5	8	30.6	17×18	400	6	29	50
NRL 08-02	8	R1/4	25.9	14.4	18.5	11	30.6	17×18	400	6	31.7	50
NRL 08-03	8	R3/8	25.9	14.4	18.5	12	30.6	17×18	400	6	40.8	50
NRL 10-03	10	R3/8	29.8	17.6	21	12	35.3	22×24	300	7.5	62.9	25
NRL 10-04	10	R1/2	29.8	17.6	21	15	36.3	22×24	300	7.5	73.1	25
NRL 12-03	12	R3/8	32.7	21	22.5	12	40.5	24×26	250	9	81	25
NRL 12-04	12	R1/2	32.7	21	22.5	15	40.5	24×26	250	9	87.6	25

**NHRL**  
Elbow

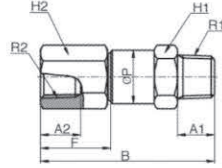


MODEL[ØD-T] Tube(Metric)-Thread(R)

MODEL	ØD	R	F	C	B	ØP1	ØP2	A	H	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRL 04-M5	4	M5	20.2	16	33	10	11	3.5	12	1500	2	20.1	100
NHRL 04-M6	4	M6	20	16	34	10	11	4.5	12	1500	3	20.6	100
NHRL 04-01	4	R1/8	20.2	16	37.5	10	11	8	12	1500	6	25	50
NHRL 06-01	6	R1/8	22.9	17	43.2	12.4	14	8	17	1200	6	44.4	50
NHRL 06-02	6	R1/4	22.9	17	46.2	12.4	14	11	17	1200	6	50.2	50
NHRL 08-01	8	R1/8	25.9	18.5	44.2	14.4	14	8	17	1200	6	47.3	50
NHRL 08-02	8	R1/4	25.9	18.5	47.2	14.4	14	11	17	1200	6	53	50
NHRL 10-03	10	R3/8	29.8	21	55.3	17.6	20	12	24	1000	9	107.9	20
NHRL 10-04	10	R1/2	29.8	21	58.3	17.6	20	15	24	1000	9	124.6	20
NHRL 12-03	12	R3/8	33.7	22.5	57	21	20	12	24	1000	9	113.2	20
NHRL 12-04	12	R1/2	33.7	22.5	60	21	20	15	24	1000	9	128.9	20

# NHRF

Bush



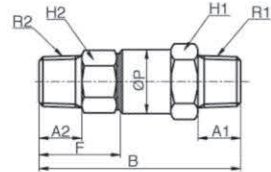
MODEL[ØD-T] Tube(Metric)-Thread(R)

MODEL	R1	R2	F	B	ØP	A1	A2	H1	H2	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRF 01-01	R1/8	Rc1/8	21	49	16.5	8	9	17	14	1200	6	48.2	50
NHRF 01-02	R1/8	Rc1/4	24	52	16.5	8	12	17	17	1200	6	50	50
NHRF 02-01	R1/4	Rc1/8	21	52	16.5	11	9	17	14	1200	6	60.5	50
NHRF 02-02	R1/4	Rc1/4	24	55	16.5	11	12	17	17	1200	6	63.6	50
NHRF 03-03	R3/8	Rc3/8	28	63.5	23.5	12	13	24	22	1000	9	126.8	25
NHRF 03-04	R3/8	Rc1/2	31	66.5	23.5	12	16	24	24	1000	9	131	25
NHRF 04-03	R1/2R	Rc3/8	28	66.5	23.5	15	13	24	22	1000	9	145	25
NHRF 04-04	1/2	Rc1/2	31	69.5	23.5	15	16	24	24	1000	9	150.3	25

Rotary Joints

# NHRS

Nipple



MODEL[ØD-T] Tube(Metric)-Thread(R)

MODEL	R1	R2	F	B	ØP	A1	A2	H1	H2	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRS 01-01	R1/8	R1/8	21	49	16.5	8	8	17	14	1200	6	43.7	50
NHRS 01-02	R1/8	R1/4	24	52	16.5	8	11	17	14	1200	6	52	50
NHRS 02-01	R1/4	R1/8	21	52	16.5	11	8	17	14	1200	6	52	50
NHRS 02-02	R1/4	R1/4	24	55	16.5	11	11	17	14	1200	6	55.3	50
NHRS 03-03	R3/8	R3/8	28	63.5	23.5	12	12	24	22	1000	9	120.2	25
NHRS 03-04	R3/8	R1/2	31	66.5	23.5	12	15	24	22	1000	9	135	25
NHRS 04-03	R1/2R	R3/8R	28	66.5	23.5	15	12	24	22	1000	9	135	25
NHRS 04-04	1/2	1/2	31	69.5	23.5	15	15	24	22	1000	9	150	25

# Metric Size G(PF) Thread Type

- One -Touch Fittings
- Compact One -Touch Fittings
- Speed Controllers
- Metal Body Speed Controllers
- **Rotary Joints**
- Stop Fittings
- Check Valves
- Ball Valves
- Hand Valves

# ROTARY JOINTS

### Application

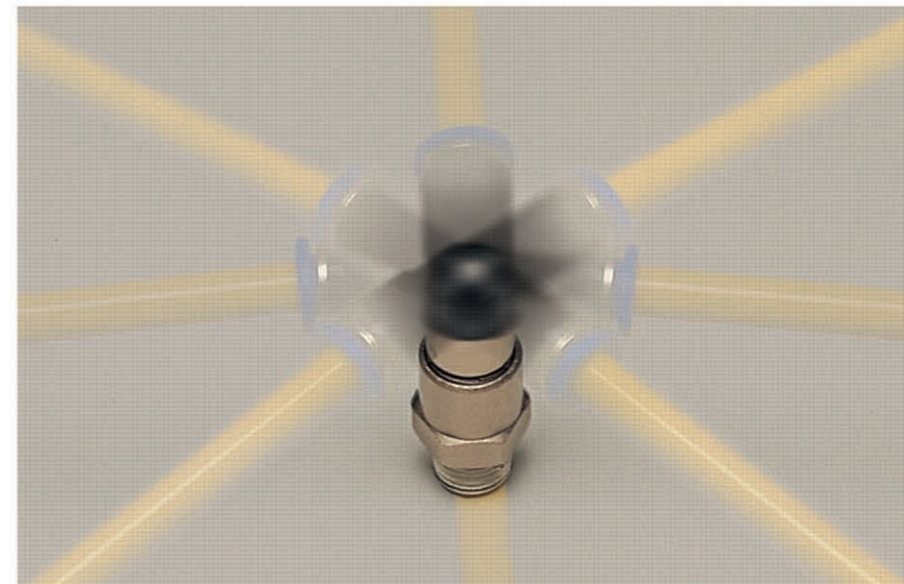
- Used for supplying compressed air at swiveling or swinging connections.
- Used for index tables and industrial robots.

### Feature

- Built in bearings, suitable for high-speed swiveling pneumatic connections..

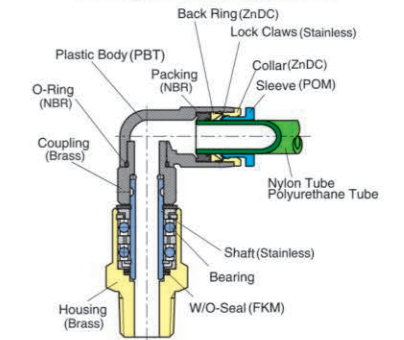
### Specification

Fluid	Air(No other gases or liquids)	
Working Pressure Range	0~150PSI	0~9Kgf/cm <sup>2</sup> (0~900kPa)
Negative Pressure	-29.50 in Hg	-750mmHg(10Torr)
Temperature Range	32~140° F	0~60° C
Applicable Tube Material	Polyurethane and Nylon	

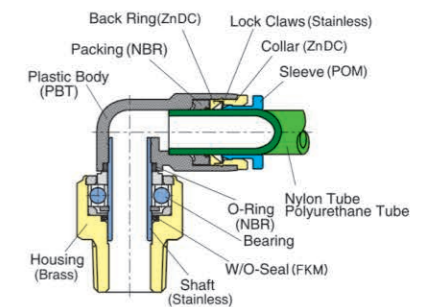


### Structural Diagram

#### ▼High Rotary Joint



#### ▼Rotary Joint



### Product Code System

**NHRC 06-G01**

	①	②	③			
① Type						
② Tube Dia(∅D)						
Code	04	06	08	10	12	
Dia	∅4	∅6	∅8	∅10	∅12	
③ Thread Size(T)						
	Metric Size		Taper Pipe Thread			
Code	M5	M6	G01	G02	G03	G04
Size	M5×0.8	M6×1.0	R1/8	R1/4	R3/8	R1/2

### Number of Rotations

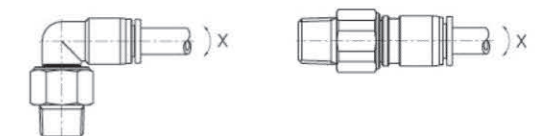
	Tube Dia	∅4	∅6	∅8	∅10	∅12
r.p.m	Low NRC, NRL	500	500	400	300	250
	High NHRC, NHRL, NHRS, NHRF	1,500	1,200	1,200	1,000	1,000

### ⚠ CAUTION

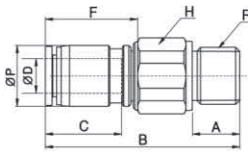
-Be sure to read "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.

### ⚠ WARNING

- When using at high speed, use PU tube.
- Nylon or other hard tube can cause overload of the rotation.



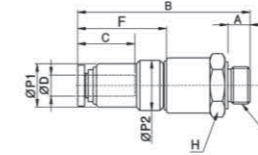
**NRC-G**  
Straight



MODEL [ØD-T] Tube (Metric) - Thread (G)

MODEL	ØD	R	F	ØP	C	A	B	H	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NRC 04-G01	4	G1/8	17.7	10.4	16	6	33.4	14	500	3	16	100
NRC 06-G01	6	G1/8	18.5	12.4	17	6	38.5	14	500	4	16	50
NRC 06-G02	6	G1/4	20.2	12.4	17	8	38.5	17	500	4	20.5	50
NRC 08-G01	8	G1/8	20.2	14.4	18.5	6	43.6	17	400	6	29	50
NRC 08-G02	8	G1/4	20.2	14.4	18.5	8	45.6	17	400	6	29.5	50
NRC 08-G03	8	G3/8	22.8	14.4	18.5	10	47.6	21	400	6	37.5	50
NRC 10-G03	10	G3/8	29.6	18	21	10	54.1	22	300	7.5	65.7	25
NRC 10-G04	10	G1/2	29.6	18	21	12	55.6	24	300	7.5	75	25
NRC 12-G03	12	G3/8	31.5	21.8	22	10	61.5	24	250	9	93	25
NRC 12-G04	12	G1/2	31.5	21.8	22	12	58.5	24	250	9	100.1	25

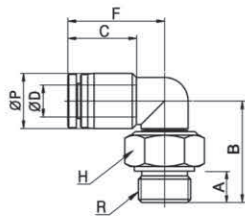
**NHRC-G**  
Straight



MODEL [ØD-T] Tube (Metric) - Thread (G)

MODEL	ØD	R	F	C	B	ØP1	ØP2	A	H	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRC 04-G01	4	G1/8	21.7	16	50	10.4	11	6	14	1500	3	28.2	50
NHRC 06-G01	6	G1/8	24	17	50.3	13	15	6	17	1500	4	27	50
NHRC 06-G02	6	G1/4	24	17	52.3	13	15	8	17	1200	4	55.4	50
NHRC 08-G01	8	G1/8	24.3	18.5	50.3	14.4	15	6	17	1200	6	51.5	50
NHRC 08-G02	8	G1/4	24.3	18.5	52.3	14.4	15	8	17	1200	6	57.4	50
NHRC 08-G03	8	G3/8	24.3	18.5	53.8	14.4	15	10	21	200	6	58.1	25
NHRC 10-G03	10	G3/8	29.3	21	62.8	18	20	10	24	1000	7.5	114.1	25
NHRC 10-G04	10	G1/2	29.3	21	63.8	18	20	12	24	1000	7.5	130.1	25
NHRC 12-G03	12	G3/8	32	22	55.0	21.8	20	10	24	1000	9	119.1	25
NHRC 12-G04	12	G1/2	32	22	67.5	21.8	20	12	24	1000	9	135.2	25

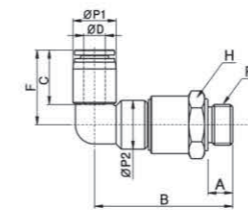
**NRL-G**  
Elbow



MODEL [ØD-T] Tube (Metric) - Thread (G)

MODEL	ØD	R	F	ØP	C	A	B	H	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NRL 04-G01	4	G1/8	20.2	10.4	16	6	22	14	500	3	12.3	100
NRL 06-G01	6	G1/8	22.9	12.4	17	6	26.2	14	500	4	17.6	50
NRL 06-G02	6	G1/4	22.9	12.4	17	8	26.2	17	500	4	22.2	50
NRL 08-G01	8	G1/8	25.9	14.4	18.5	6	30.6	17	400	6	29	50
NRL 08-G02	8	G1/4	25.9	14.4	18.5	8	32.6	17	400	6	31.7	50
NRL 08-G03	8	G3/8	25.9	14.4	18.5	10	34.6	21	400	6	40.8	50
NRL 10-G03	10	G3/8	29.8	17.6	21	10	33.3	22	300	7.5	62.9	25
NRL 10-G04	10	G1/2	29.8	17.6	21	12	34.8	24	300	7.5	73.1	25
NRL 12-G03	12	G3/8	32.7	21	22.5	10	40.5	24	250	9	81	25
NRL 12-G04	12	G1/2	32.7	21	22.5	12	37.5	24	250	9	87.6	25

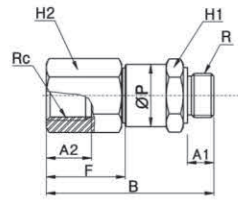
**NHRL-G**  
Elbow



MODEL [ØD-T] Tube (Metric) - Thread (G)

MODEL	ØD	R	F	C	B	ØP1	ØP2	A	H	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRL 04-G01	4	G1/8	20.2	16	35.5	10	11	6	14	1500	3	23	50
NHRL 06-G01	6	G1/8	22.9	17	42.2	12.4	14	6	17	1500	4	43.3	50
NHRL 06-G02	6	G1/4	22.9	17	43.2	12.4	14	8	17	1200	4	57.2	50
NHRL 08-G01	8	G1/8	25.9	18.5	42.2	14.4	14	6	17	1200	6	45.3	50
NHRL 08-G02	8	G1/4	25.9	18.5	43.2	14.4	14	8	17	1200	6	50.3	50
NHRL 10-G03	10	G3/8	29.8	21	53.3	17.6	20	10	24	1000	7.5	105.9	20
NHRL 10-G04	10	G1/2	29.8	21	55.3	17.6	20	12	24	1000	7.5	121.5	20
NHRL 12-G03	12	G3/8	33.7	22.5	55	21	20	10	24	1000	9	110.2	20
NHRL 12-G04	12	G1/2	33.7	22.5	57	21	20	12	24	1000	9	125.8	20

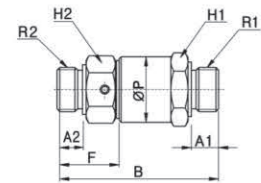
**NHRF-G**  
Bush



MODEL[ $\varnothing D-T$ ] Tube(Metric)-Thread(G)

MODEL	R	Rc	F	B	$\varnothing P$	A1	A2	H1	H2	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRF G01-G01	G1/8	G1/8	21	49	16.5	8	9	17	14	1200	6	48.2	50
NHRF G01-G02	G1/8	G1/4	24	52	16.5	8	12	17	17	1200	6	50	50
NHRF G02-G01	G1/4	G1/8	21	52	16.5	11	9	17	14	1200	6	60.5	50
NHRF G02-G02	G1/4	G1/4	24	55	16.5	11	12	17	17	1200	6	63.6	50
NHRF G03-G03	G3/8	G3/8	28	63.5	23.5	12	13	24	22	1000	9	126.8	25
NHRF G03-G04	G3/8	G1/2	31	66.5	23.5	12	16	24	24	1000	9	131	25
NHRF G04-G03	G1/2	G3/8	28	66.5	23.5	15	13	24	22	1000	9	145	25
NHRF G04-G04	G1/2	G1/2	31	69.5	23.5	15	16	24	24	1000	9	150.3	25

**NHRS-G**  
Nipple



MODEL[ $\varnothing D-T$ ] Tube(Metric)-Thread(G)

MODEL	R1	R2	F	B	$\varnothing P$	A1	A2	H1	H2	RPM	Orifice (mm)	W.G(g)	Qty/Inbox
NHRS G01-G01	G1/8	G1/8	21	49	16.5	8	8	17	14	1200	6	43.7	50
NHRS G01-G02	G1/8	G1/4	24	52	16.5	8	11	17	14	1200	6	52	50
NHRS G02-G01	G1/4	G1/8	21	52	16.5	11	8	17	14	1200	6	52	50
NHRS G02-G02	G1/4	G1/4	24	55	16.5	11	11	17	14	1200	6	55.3	50
NHRS G03-G03	G3/8	G3/8	28	63.5	23.5	12	12	24	22	1000	9	120.2	25
NHRS G03-G04	G3/8	G1/2	31	66.5	23.5	12	15	24	22	1000	9	135	25
NHRS G04-G03	G1/2	G3/8	28	66.5	23.5	15	12	24	22	1000	9	135	25
NHRS G04-G04	G1/2	G1/2	31	69.5	23.5	15	15	24	22	1000	9	150	25