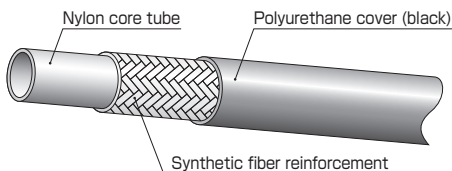


# 1000-1100-1400-1500 Series

## 1000

### Features

- Small outer diameter
- Lightweight
- Campucka coupling can be used



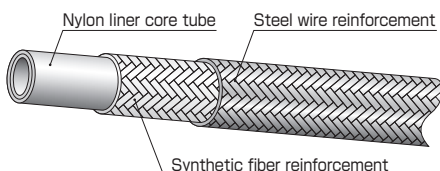
Part No.	Size			Max. working pressure		Min. burst pressure		Min. bending radius (mm)	Weight (g/m)	Coupling	
	Size No.	I.D. (in.)	I.D. (mm)	O.D. (mm)	(MPa)	(PSI)	(MPa)				(PSI)
1000-04	04	1/4	6.3	10.4	10.5	1,500	42.0	6,000	30	64	Campucka Swage
1000-06	06	3/8	9.5	14.0	10.5	1,500	42.0	6,000	60	90	
1000-08	08	1/2	12.7	17.4	10.5	1,500	42.0	6,000	80	131	

- Appropriate fluid : mineral general operating oil
- Working temperature range : -40 to +100°C
- Length in a unit package : 100m

## 1100

### Features

- Outer wire reinforcement prevents the cutting powder



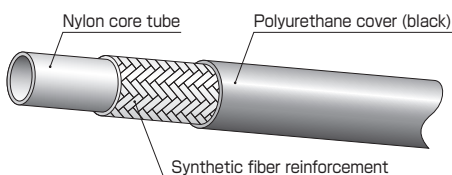
Part No.	Size			Max. working pressure		Min. burst pressure		Min. bending radius (mm)	Weight (g/m)	Coupling	
	Size No.	I.D. (in.)	I.D. (mm)	O.D. (mm)	(MPa)	(PSI)	(MPa)				(PSI)
1100-04	04	1/4	6.3	11.1	10.5	1,500	42.0	6,000	40	150	Swage
1100-06	06	3/8	9.5	15.1	10.5	1,500	42.0	6,000	60	220	
1100-08	08	1/2	12.7	18.8	10.5	1,500	42.0	6,000	80	300	

- Appropriate fluid : mineral general operating oil
- Working temperature range : -40 to +100°C
- Length in a unit package : 100m

## 1400

### Features

- Small outer diameter
- Lightweight
- Campucka coupling can be used



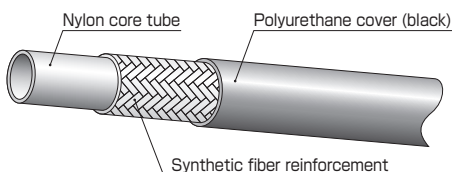
Part No.	Size			Max. working pressure		Min. burst pressure		Min. bending radius (mm)	Weight (g/m)	Coupling	
	Size No.	I.D. (in.)	I.D. (mm)	O.D. (mm)	(MPa)	(PSI)	(MPa)				(PSI)
1400-04	04	1/4	6.3	10.4	14.0	2,000	56.0	8,000	30	64	Campucka Swage
1400-06	06	3/8	9.5	14.0	14.0	2,000	56.0	8,000	60	90	

- Appropriate fluid : mineral general operating oil
- Working temperature range : -40 to +100°C
- Length in a unit package : 100m

## 1500

### Features

- Small outer diameter
- Lightweight



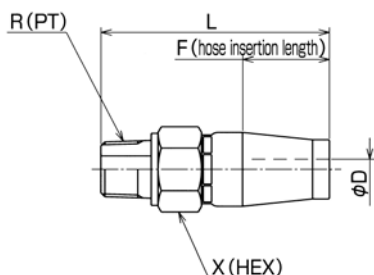
Part No.	Size			Max. working pressure		Min. burst pressure		Min. bending radius (mm)	Weight (g/m)	Coupling	
	Size No.	I.D. (in.)	I.D. (mm)	O.D. (mm)	(MPa)	(PSI)	(MPa)				(PSI)
1500-03	03	3/16	5.1	8.8	15.0	2,150	60.0	8,600	20	45	Swage

- Appropriate fluid : mineral general operating oil
- Working temperature range : -40 to +100°C
- Length in a unit package : 100m

## [Campucka type] Hydraulic push-one coupling

(For 1000, 1400)

### CA

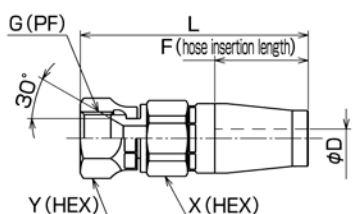


Part No.	R	Min. I.D. φD	F	L	X	Weight (g)
CA-R-04-14L	1/4	3.5	26.0	60	19	70
CA-R-06-14L	3/8	6.0	29.0	68	22	100
CA-R-08-14L	1/2	9.0	35.0	77	27	170

**CAUTION** : Handle with care not to drop couplings as an inner nipple could be self locked by pushing-out action to inlet of coupling.

- Material : steel
- Working temperature range : -20 to +100°C
- Adapter : 030, 130

### CE

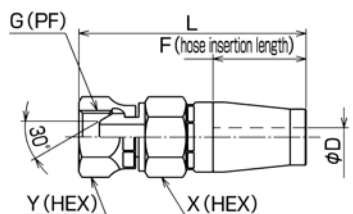


Part No.	G	Min. I.D. φD	F	L	X	Y	Weight (g)
CE-G-04-14L	1/4	3.5	26.0	64	19	19	85
CE-G-06-14L	3/8	6.0	29.0	72	22	22	115
CE-G-08-14L	1/2	9.0	35.0	83	27	27	205

**CAUTION** : Handle with care not to drop couplings as an inner nipple could be self locked by pushing-out action to inlet of coupling.

- Material : steel
- Working temperature range : -20 to +100°C
- Adapter : 010, 045, 090, 150, 020, 025, 064, 069, 030

### CF



Part No.	G	Min. I.D. φD	F	L	X	Y	Weight (g)
CF-G-04-14L	1/4	3.5	26.0	64	19	19	85
CF-G-06-14L	3/8	6.0	29.0	72	22	22	115
CF-G-08-14L	1/2	9.0	35.0	83	27	27	205

**CAUTION** : Handle with care not to drop couplings as an inner nipple could be self locked by pushing-out action to inlet of coupling.

- Material : steel
- Working temperature range : -20 to +100°C
- Adapter : 110, 145, 190, 130

## Features of Campucka and assembly mechanism

Assembling  
method  
▶▶▶ p.57

### 1 Push-one connection

- Reduction of operation time (half that of our conventional product)
- Specialized swaging tool is not necessary. (Easy handling)
- Best for on-site length adjustment.
- Convenient for emergency repair.

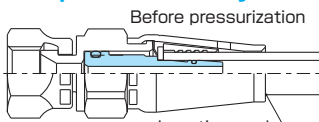
### 4 Nipple stop mechanism

- Ratchet mechanism of our original lock ring is employed.
- Steady performance even for movable piping.
- Pressure variation is accommodated.

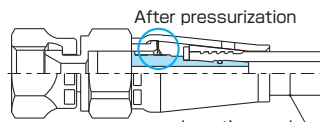
### 2 Detachable hose

- Hose is detachable for length adjustment when piping.
  - Detachable tool is available.
- CAUTION** : Cannot be detached after pressurization.

#### Campucka assembly mechanism



Swaging force proportional to inner pressure.



Detailed diagram



Lock ring prevents swage releasing after pressurization.

### 3 Correcting hose's twisted direction

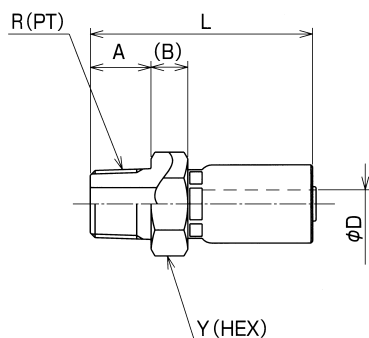
- It is possible to correct the twisted direction of a hose.
- CAUTION** : Cannot be detached after pressurization.

**CAUTION** : Handle with care not to drop couplings as an inner nipple could be self locked by pushing-out action to inlet of coupling.

## [Swage type]

(For 1000, 1100, 1400, 1500)

### SA



Part No.	Size No.	R	A	B	Min. I.D. φD	L	Y (HEX)	Weight (g)	Pusher	Die
SA-PT-03-14	03	1/4	13	8.5	3.0	44	19	40	PSA-04	SP14-03
SA-PT-04-14	04	1/4	13	8.5	3.5	50	19	43	PSA-04	SP14-04
SA-PT-06-14	06	3/8	15	9.0	6.8	54	22	72	PSA-06	SP14-06
SA-PT-08-14	08	1/2	18	10.0	9.5	61	27	115	PSA-08	SP14-08* SP10-08*

■ Material : steel

■ Adapter : 030, 130

\* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

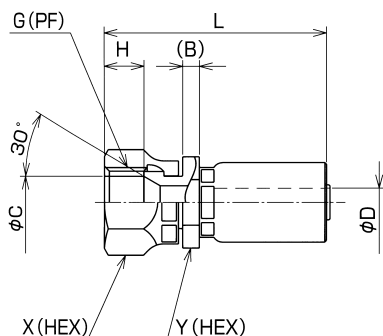
#### Stainless steel type

Part No.	Size No.	R	A	B	Min. I.D. φD	L	Y (HEX)	Weight (g)	Pusher	Die	
										First	Second
SA-PT-04-14-S	04	1/4	13	8.5	3.5	50	19	43	PSA-04	SPH-03	SP14-04
SA-PT-06-14-S	06	3/8	15	9.0	6.8	54	22	72	PSA-06	SP3-05-1-ST	SP14-06
SA-PT-08-14-S	08	1/2	18	10.0	9.5	61	27	115	PSA-08	SPH-06-1-ST	SP14-08

■ Material : stainless steel SUS304

■ Adapter : 030, 130

### SE



Part No.	Size No.	G	B	C	Min. I.D. φD	H	L	X (HEX)	Y (HEX)	Weight (g)	Pusher	Die
SE-PF-03-14	03	1/4	4.0	9.5	3.0	8.0	44	19	17	42	PSE14-04	SP14-03
SE-PF-04-14	04	1/4	4.0	9.3	3.5	8.0	49	19	17	55	PSE14-04	SP14-04
SE-PF-06-14	06	3/8	4.0	12.3	6.8	9.5	53	22	19	75	PSE14-06	SP14-06
SE-PF-08-14	08	1/2	4.5	16.0	9.5	12.0	61	27	24	125	PSE14-08	SP14-08* SP10-08*

■ Material : steel

■ Adapter : 010, 045, 090, 150, 020, 025, 064, 069, 030

\* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

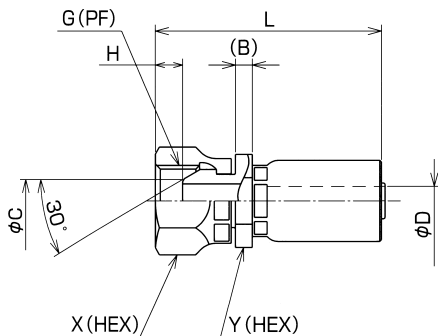
#### Stainless steel type

Part No.	Size No.	G	B	C	Min. I.D. φD	H	L	X (HEX)	Y (HEX)	Weight (g)	Pusher	Die	
												First	Second
SE-PF-04-14-S	04	1/4	4.0	9.5	3.5	8.0	49	19	17	55	PSE-14-04	SPH-03	SP14-04
SE-PF-06-14-S	06	3/8	4.0	12.5	6.8	9.5	53	22	19	71	PSE-14-06	SP3-05-1-ST	SP14-06
SE-PF-08-14-S	08	1/2	4.5	16.0	9.5	12.0	61	27	24	125	PSE-14-08	SPH-06-1-ST	SP14-08

■ Material : stainless steel SUS304

■ Adapter : 010, 045, 090, 150, 020, 025, 064, 069, 030

### SF



Part No.	Size No.	G	B	C	Min. I.D. φD	H	L	X (HEX)	Y (HEX)	Weight (g)	Pusher	Die
SF-PF-03-14	03	1/4	4.0	7.5	3.0	5.5	44	19	17	45	PSE14-04	SP14-03
SF-PF-04-14	04	1/4	4.0	7.5	3.5	5.5	49	19	17	55	PSE14-04	SP14-04
SF-PF-06-14	06	3/8	4.0	10.0	6.8	6.5	53	22	19	75	PSE14-06	SP14-06
SF-PF-08-14	08	1/2	4.5	13.2	9.5	9.0	61	27	24	125	PSE14-08	SP14-08* SP10-08*

■ Material : steel

■ Adapter : 110, 145, 190, 130

\* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

#### Stainless steel type

Part No.	Size No.	G	B	C	Min. I.D. φD	H	L	X (HEX)	Y (HEX)	Weight (g)	Pusher	Die	
												First	Second
SF-PF-04-14-S	04	1/4	4.0	7.5	3.5	5.5	49	19	17	56	PSE-14-04	SPH-03	SP14-04
SF-PF-06-14-S	06	3/8	4.0	10.0	6.8	6.5	53	22	19	75	PSE-14-06	SP3-05-1-ST	SP14-06
SF-PF-08-14-S	08	1/2	4.5	13.2	9.5	9.0	61	27	24	125	PSE-14-08	SPH-06-1-ST	SP14-08

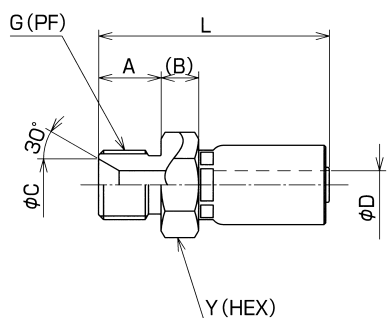
■ Material : stainless steel SUS304

■ Adapter : 110, 145, 190, 130

[Swage type]

(For 1000, 1100, 1400)

SC



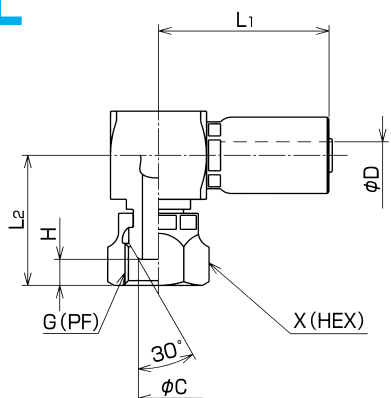
Part No.	Size No.	R	A	B	C	Min. I.D. $\phi D$	L	Y (HEX)	Weight (g)	Pusher	Die
SC-PF-04-14	04	1/4	14	8.5	9.5	3.5	51	19	43	PSA-04	SP14-04
SC-PF-06-14	06	3/8	15	9.0	12.5	6.8	54	22	72	PSA-06	SP14-06
SC-PF-08-14	08	1/2	18	10.0	18.0	9.5	61	27	115	PSA-08	SP14-08* SP10-08*

■ Material : steel

■ Adapter : 060

\* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

SL



Part No.	Size No.	G	C	Min. I.D. $\phi D$	H	L1	L2	X (HEX)	Weight (g)	Pusher	Die
SL-PF-04-14	04	1/4	7.5	3.5	5.5	39	28	19	120	PSL-04	SP14-04
SL-PF-06-14	06	3/8	10.0	6.8	6.5	42	33	22	160	PSL-06	SP14-06
SL-PF-08-14	08	1/2	13.2	9.5	9.0	47	37	27	250	PSL-08	SP14-08* SP10-08*

■ Material : steel

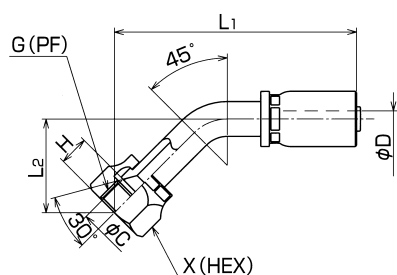
■ Adapter : 110, 145, 190, 130

\* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

## [Swage type]

(For 1000, 1100, 1400)

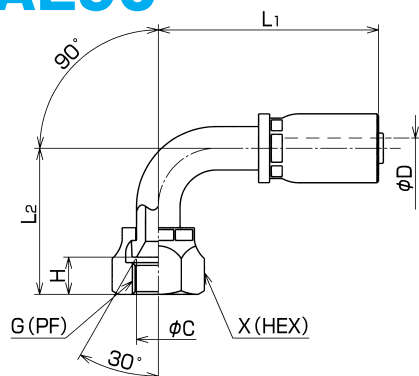
### AE45



Part No.	Size No.	G	C	Min. I.D. $\phi D$	H	L <sub>1</sub>	L <sub>2</sub>	Y (HEX)	Weight (g)	Pusher	Die
AE45-G-04-14	04	1/4	9.0	3.2	8.0	61	18	19	57	PFB-01+PA-04	SP14-04
AE45-G-06-14	06	3/8	12.0	5.6	9.5	74	25	22	90	PFB-01+PA-06	SP14-06
AE45-G-08-14	08	1/2	15.5	8.7	12.0	87	29	27	143	PFB-01+PA-08	SP14-08* SP10-08*

- Material : steel
- Adapter : 010, 045, 090, 150, 020, 025, 064, 069, 030
- \* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

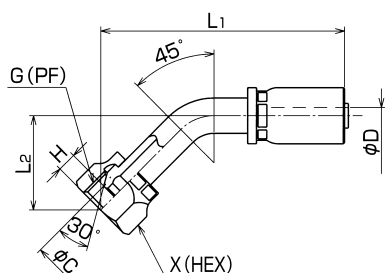
### AE90



Part No.	Size No.	G	C	Min. I.D. $\phi D$	H	L <sub>1</sub>	L <sub>2</sub>	Y (HEX)	Weight (g)	Pusher	Die
AE90-G-04-14	04	1/4	9.0	3.2	8.0	51	33	19	59	PFB-01+PA-04	SP14-04
AE90-G-06-14	06	3/8	12.0	5.6	9.5	61	45	22	98	PFB-01+PA-06	SP14-06
AE90-G-08-14	08	1/2	15.5	8.7	12.0	68	52	27	153	PFB-01+PA-08	SP14-08* SP10-08*

- Material : steel
- Adapter : 010, 045, 090, 150, 020, 025, 064, 069, 030
- \* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

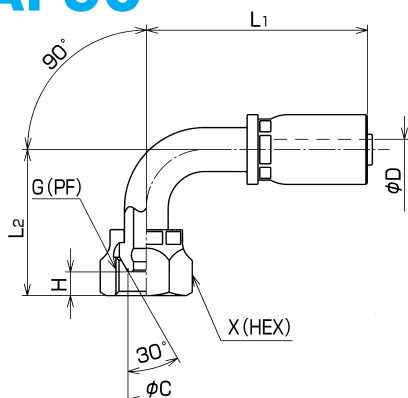
### AF45



Part No.	Size No.	G	C	Min. I.D. $\phi D$	H	L <sub>1</sub>	L <sub>2</sub>	Y (HEX)	Weight (g)	Pusher	Die
AF45-G-04-14	04	1/4	7.0	3.2	5.5	63	19	19	58	PFB-01+PA-04	SP14-04
AF45-G-06-14	06	3/8	10.0	5.6	6.5	72	23	22	90	PFB-01+PA-06	SP14-06
AF45-G-08-14	08	1/2	14.0	8.7	9.0	88	30	27	147	PFB-01+PA-08	SP14-08* SP10-08*

- Material : steel
- Adapter : 110, 145, 190, 130
- \* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

### AF90



Part No.	Size No.	G	C	Min. I.D. $\phi D$	H	L <sub>1</sub>	L <sub>2</sub>	Y (HEX)	Weight (g)	Pusher	Die
AF90-G-04-14	04	1/4	7.0	3.2	5.5	51	33	19	61	PFB-01+PA-04	SP14-04
AF90-G-06-14	06	3/8	10.0	5.6	6.5	61	45	22	100	PFB-01+PA-06	SP14-06
AF90-G-08-14	08	1/2	14.0	8.7	9.0	68	52	27	156	PFB-01+PA-08	SP14-08* SP10-08*

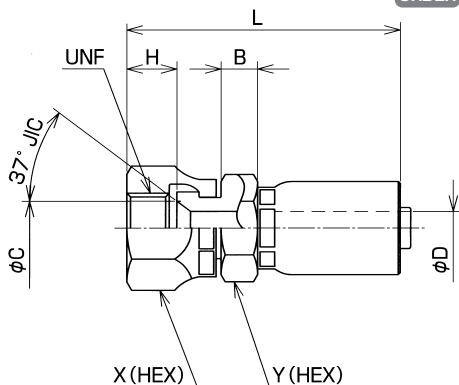
- Material : steel
- Adapter : 110, 145, 190, 130
- \* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.

[Swage type]

(For 1000, 1100, 1400)

SK

MADE TO ORDER

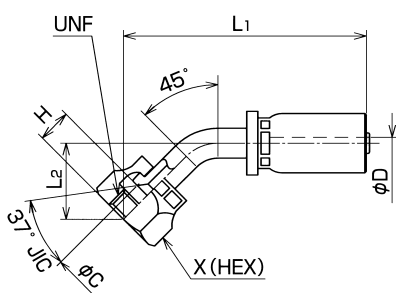


Part No.	Size No.	UNF	B	C	Min. I.D. φD	H	L	X (HEX)	Y (HEX)	Weight (g)	Pusher	Die
★ SK-7/16-04-14	04	7/16-20	6.5	7.5	3.5	9.0	51	19	17	58	PSK-04H	SP14-04
★ SK-9/16-06-14	06	9/16-18	7.5	11.0	6.8	10.0	57	22	19	82	PSK-06H	SP14-06
★ SK-3/4-08-14	08	3/4-16	4.5	14.5	9.5	11.5	57	27	22	105	PSE-14-08	SP14-08* SP10-08*

■ Material : steel  
 \* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.  
 ★Made-to-order

AK45

MADE TO ORDER

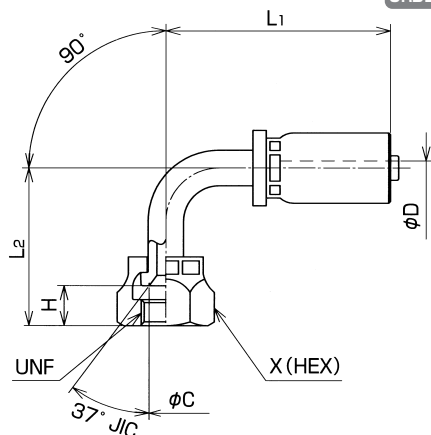


Part No.	Size No.	UNF	C	Min. I.D. φD	H	L <sub>1</sub>	L <sub>2</sub>	X (HEX)	Weight (g)	Pusher	Die
★ AK45-7/16-04-14C	04	7/16-20	7.5	3.2	9.0	70	27	19	57	PFB-01+PA-04	SP14-04
★ AK45-9/16-06-14C	06	9/16-18	11.0	5.6	10.0	91	39	22	90	PFB-01+PA-06	SP14-06
★ AK45-3/4-08-14C	08	3/4-16	14.5	8.7	12.0	98	40	27	143	PFB-01+PA-08	SP14-08* SP10-08*

■ Material : steel  
 \* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.  
 ★Made-to-order

AK90

MADE TO ORDER



Part No.	Size No.	UNF	C	Min. I.D. φD	H	L <sub>1</sub>	L <sub>2</sub>	X (HEX)	Weight (g)	Pusher	Die
★ AK90-7/16-04-14C	04	7/16-20	7.5	3.2	9.0	51	36	19	59	PFB-01+PA-04	SP14-04
★ AK90-9/16-06-14C	06	9/16-18	11.0	5.6	10.0	61	40	22	98	PFB-01+PA-06	SP14-06
★ AK90-3/4-08-14C	08	3/4-16	14.5	8.7	12.0	68	57	27	153	PFB-01+PA-08	SP14-08* SP10-08*

■ Material : steel  
 \* Use SP-14-08 for 1000-08 and SP-10-08 for 1100-08.  
 ★Made-to-order