



EQUIPMENT
HOSE/CPLG. SELECTION
G8K COUPLINGS
GLOBALSPIRAL COUPLINGS
PCM/PCS FERRULES
MEGACRIMP COUPLINGS
STAINLESS STEEL
POWER CRIMP COUPLINGS
LOC, GL AND GLP COUPLINGS
POLARSEAL COUPLINGS
POLARSEAL II COUPLINGS
C14 COUPLINGS
PCTS THERMO-PLASTIC COUPLINGS
FIELD ATTACHABLE G1 AND G2 COUPLINGS
FIELD ATTACHABLE C5 AND C5E COUPLINGS
SURELOK AIR BRAKE COUPLINGS
ADAPTERS
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Coupling Selection

End Configuration Selection

It is important to keep in mind that the hose assembly (coupling and hose) is only one component of the system. In choosing the correct end terminations for the couplings attached to the hose, formal design standards and sound engineering judgement should be used.

In the absence of formal design standards, consider the following factors in choosing the proper end termination:

- Pressure
- Impulse frequency, amplitude and wave form
- Vibration
- Corrosion
- Dissimilar metals (galvanic corrosion)
- Maintenance procedures and frequency
- Installation reliability
- Connection's risk in the system
- Exposure to the elements
- Operator's and/or bystander's exposure to the connection
- Installation, operation and service activities and practices that affect safety

If there are any questions as to what end fittings should be used, Gates recommends that you consult your field sales representative or the Gates Hose and Connector Product Application Group for assistance.

Stem and Ferrule Selection

Choosing the proper stem and ferrule depends on the specific hose and termination to be used in the assembly. Check the Gates Crimp Data Manual to ensure proper hose assembly components and crimp specifications.

Gates also offers eCrimp™, an online crimp database that can be accessed at www.gates.com/ecrimp.

Results Example

Crimping Instructions for the GL coupling on the MobileCrimp® 4-20

To achieve the proper tail length, line up the fitting end of the ferrule with the top of the die (see Figure 1) prior to crimping.

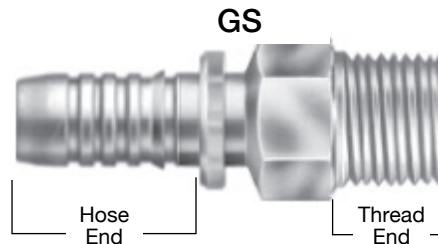
Crimp Size	Description	Size (in.)	Type	Deceleration (ft/s²)	Part No.	Length (in.)	Diameter (in.)	Insetion (in.)	Tail Length (in.)	Comp. Length (in.)	Die Size	Die Set	Crimp Ring Setting	Crimp Ferrule Setting	Crimp Wire Setting
1/2	CONVGL20	1/2	COUL	1-60	GL	1.17	0.50	1.17	0.50	1.17	MCR20	200	W1	W1	W1
3/8	CONVGL16	3/8	COUL	1-60	GL	1.17	0.375	1.17	0.375	1.17	MCR16	200	W1	W1	W1
3/8	CONVGL16H	3/8	COUL	1-60	GL	1.17	0.375	1.17	0.375	1.17	MCR16H	200	W1	W1	W1

After determining the proper coupling components, refer to the Table of Contents in this catalog to find the proper coupling section. The ferrules are at the end of each coupling section.

Stem Selection

Different hoses may require different coupling styles. To make your selection, determine the correct stem to be used. There are two functional ends of the stem to consider:

1. the hose end for hose attachment;
2. the thread end for port attachment.



References to the coupling type(s) recommended for a specific hose are listed on the individual hose data pages; for example, EFG5K hose specifies GS couplings.

The thread end of a coupling (or adapter) can be identified by comparing the coupling being replaced or by measuring the port or thread end to which it is to be attached. See thread end identification nomenclature.

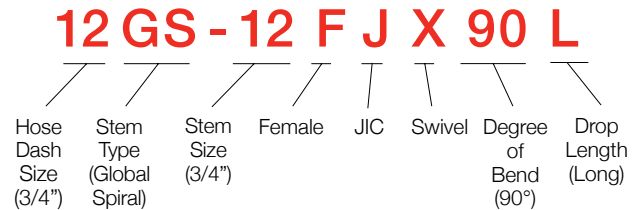


Coupling Selection – con't.

Coupling and Adapter End Style Nomenclature

Gates couplings feature a meaningful description by combining end-style codes shown below that make thread end identification fast and easy. Always refer to Gates Crimp Data Manual when selecting hose and coupling combinations.

In the following example, the Gates description 12GS-12FJX90L identifies a GlobalSpiral™ Female JIC Swivel 90° Bend Long Drop coupling for -12 (3/4") hose size and -12 (3/4") stem size.



Code	Description
A	Adapterless
AB	Air Brake
API	API Unions
B	Brass
BBDS	British Bonded Seal
BJ	Banjo
BKHD	Bulkhead
BL	Block
BS	Bite Sleeve
BSPP	British Standard Pipe Parallel
BSPT	British Standard Pipe Tapered
C	Caterpillar Flang
CC	Clamping Collar
DH	DIN Heavy
DL	DIN Light
F	Female
FABX	Female Air Brake Swivel
FBFFOR	Female British Flat-Face O-Ring
FBO	Female Braze-on Stem
FF	Flat-Face
FFGX	Female French GAZ Swivel (Female Kobelco)
FFN	Female Flareless Nut
FOR	Flat-Face O-Ring
FFS	Female Flareless Sleeve
FG	Female Grease Thread
FKX	Female Komatsu Style Swivel
FL	Code 61 O-Ring Flange
FLC	Caterpillar Style O-Ring Flange
FLH	Code 62 O-Ring Flange Heavy
FLOS	Flange O-Ring Special
FT	Female SAE Tube
HLE	Hose Length Extender
HLEC	Hose Length Extender (Caterpillar)
HM	Hose Mender
HU	Hammer Union
I	Inverted Flare
J	JIC (37° Flare)
JIS	Japanese Industrial Standard
K	Komatsu Style (Japanese 30° Seat)

Code	Description
LH	Long Hex
LN	Lock Nut
M	Male
MB	Male Boss
MBAX	Male Boss Adapterless Swivel
MBDS	Metric Bonded Seal
MFA	Male Flareless Assembly (Ermeto)
MFG	Male French GAZ
MKB	Metric Kobelco
MM	Metric Male
MN	Metric Nut
MPG	Male Special Grease Fitting
MPLN	Male Pipe Long Nose
MLSP	Metric Light Stand Pipe
MSP	Metric Stand Pipe
NASP	North American Stand Pipe
OR	O-Ring
P	Pipe Thread (NPTF or NPSM)
PL	Press Lok®
PT	Port
PWX	Pressure Washer Swivel
QLD	Quick-Lok® Direct
QHD	Quick-Lok® High
R	Field Attachable
S	SAE (45° Flare)
SP	Special
SS	Stainless Steel
TS	Tube Sleeve
TSN	Tube Sleeve Nut
X	Swivel
Z	Parker Triple Thread
22	22-1/2° Bent Tube Angle
30	30° Bent Tube Angle
45	45° Bent Tube Angle
60	60° Bent Tube Angle
67	67-1/2° Bent Tube Angle
90	90° Bent Tube Angle
110	110° Bent Tube Angle
135	135° Bent Tube Angle

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Coupling Selection – continued

Thread End Dash Sizes, Descriptions and Dimensions

Coupling Dash Size and End Style

Coupling dash size is a shorthand method of denoting the size of a particular end fitting (see Thread Chart).

EXAMPLE: 12MP denotes a 3/4" male pipe thread end fitting. The corresponding thread description for a 3/4" pipe thread is 3/4 -14 NPTF solid male.

EXAMPLE: 12FJX denotes a 3/4" female JIC swivel (37° seat) end fitting. The corresponding thread description for a 3/4" JIC thread is 1-1/16 – 12 JIC 37° flare swivel female.

EXAMPLE: 12FL denotes a 3/4" SAE standard pressure (Code 61) flange fitting. This is the standard fitting description for a 3/4" SAE standard pressure flange.

Termination Drop Lengths

Bent tube couplings carry a suffix designation that specifies the degree of bend and the length of the drop.

For example, a **12FJX90S** is a female JIC swivel with a 90 degree bend. The "S" designates an SAE J516 short drop length. The short and long drops are specified in SAE J516. Flat-face and metric couplings meet ISO-12151-1 drop length specifications. Medium drops are not specified and can vary from manufacturer to manufacturer.

S – Short Drop

M – Medium Drop

L – Long Drop

XL – Extra Long Drop

Special, non-industry standard drop lengths are designated with a numerical suffix instead of the S, M, L code. For example, a **12FJX90-075** designates a 75mm drop.

SAE J516 Drop Length Specifications

JIC 37°, Code 61, Code 62

Hose Size	Short Drop (mm)	Long Drop (mm)
-4	17.3	45.7
-6	21.6	55.4
-8	27.7	61.7
-10	31.2	65.3
-12	46.2	94.7
-16	54.4	110.0

ISO Drop Length Specifications

ISO 12151-S JIC and ISO 12151-3 Code 61 & Code 62

Hose Size	Short Drop (mm)	Medium Drop (mm)	Long Drop (mm)
-4	21	32	46
-6	23	38	54
-8	29	41	64
-10	32	47	80
-12	48	58	86
-16	56	71	114
-20	64	78	129
-24	69	76	129

Thread End Catalog Descriptions

Gates coupling ends shown on the following pages are accepted as industry standards. See detailed catalog listings for availability of specific hose/coupling combinations, detailed descriptions, thread end configurations such as swivels, bent tubes and special ends.

